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Section 3: Implementing Web 2.0 In The Classroom, A Holistic Approach

Introduction to Section 3

By Terry Freedman

Section 2 took a bird's-eye view of the Web 2.0 landscape, looking at the range and type of tools available. In this section, we look at some “big picture” stuff in terms of what we might call a “Web 2.0-embedded classroom”, a somewhat unwieldy term but which accurately describes the situation we could aspire to achieve.

To a large extent, this section is more theoretical than most of the others (though not entirely so: there is still a great deal of practical advice contained in these pages). I make no apology for this: if we focused only on blogs, wikis and so on there's a chance that it would become difficult to see the wood for the trees.

So, make yourself a cup of tea, get settled into your favourite armchair, and get ready for some inspiring and thought-provoking reading!

What about the pedagogy?

Darren Kuropatwa

A preliminary attempt to articulate the specific ways blogs, wikis and podcasts are used with students for the purpose of teaching and learning.

DRAFT

Flat world classrooms

By David Warlick

David Warlick alerts us to a well-known but rarely-discussed truth: that in the bad old days, the law of gravity played a major role in one's education. Read on for some fascinating insights.

Then and now

First, I must inform you that the title of this piece is a bit misleading. You may, upon scanning and latching onto this chapter, have thought, here is something about classrooms that prepare children for the flat world, as described in Thomas Friedman's book, *The World is Flat*¹. Although there would be some correctness in this assumption, the real intent of this chapter is far more literal to the learning environments that we work in.

Allow me to begin with two settings, one that takes place nearly 40 years ago, and one that might occur today. We begin with a classroom, painted a pale green, tall paned windows, framed with ancient and splintering wood. The teacher at the front of the room, standing tall behind her lecture appears equally ancient and splintered. Her desk and her podium both reside on a riser that increases her 5'11" stature (already exceeding my height by three inches) another half a foot.

She knows. She can do. She knows how. She has taught hundreds, maybe thousands of students before. They run my town. She has the knowledge. She has the skills. She stands up there. I sit down here. She lets fall what she knows – and I catch what I can.

I enter the library. All of the book cases are tall. The books with the greatest knowledge are up high. I have to reach up, on my toes, and let them fall into my arms. The knowledge is up there. I'm down here.

That school is a hilly place. Content and curriculum are elevated. Teaching and learning are driven by gravity.

Fast forward almost 40 years. My son is in class. He sits and his teacher stands. Part of his attention is on the lecture, but the most active part is on the movie set that he and several friends are in the process of preparing. They are producing a video, and the set is not a stage, nor studio, nor on-location. The set is a video game environment. They've selected the actors, and written the script. They've arranged the various apparatus of the game into staging and props. His friends are from four states of the U.S., from Canada, and from New Zealand. They'll start shooting after school, where they'll meet in the game. My son will be the director and the camera man, as he plays the game environment through iMovie, video editing software that came pre-installed on his personal computer.

There is much that he had to learn in order to shoot a movie in a video game. But I didn't teach him. I know that his teachers at school didn't teach him. He learned from the network of people he interacts with almost non-stop. He connects, seeks assistance, and receives answers through IM, by interacting with his MySpace page and the pages of others, and by text messaging on his phone, which he is constantly lifting from his pocket, reading, typing, and sliding back.

Consider that...

¹ See Sharon Peters' review of this book in Section 2 – Ed.

“Fully half of all teens and 57% of teens who use the internet could be considered Content Creators. They have created a blog or webpage, posted original artwork, photography, stories or videos online or remixed online content into their own new creations.” (Lenhart)

How many of my son's teachers are published authors. How many of them of composed and shared music or had their art displayed for an audience. **From the perspective of our students and the information landscape that they live in, they are more literate than their teachers.**

Our classrooms are flat!

So what's different?

While we continue to teach by delivering content to our students and measure success based on what they have been able to catch and memorise, our children are becoming hyper-learners, engaged in deep conversations, building information products that would astound their teachers, interacting in richly responsive environments, gaining skills and knowledge –

...all in secret from their formal education-scapes,

...but out-loud in their online societies – their **future** societies.

It's why they say:

“I have to power down when I go to school!” (Prensky)

So what are we to do. How do we set about to teach children who have no conscious connection to a time before computers, the Internet, and video games?

- We must acknowledge that it's all changed. Our children are different, because they are twenty-first century citizens. We are not. Technology has changed. But, as a result, the very nature of information has changed, dramatically. And rate of change has changed. We live in a time when the answers are not what they were, and we are increasingly asking new questions.
- We must pay attention. We should listen out, read, seek to understand and tap into the new information landscape. We must engage in new conversations with our students, talk to them about their web spaces, their video games, and the skills that they master in order to engage in their conversations.
- We should become a part of this world, engage in the conversation. We should connect with aggregators, publish with blogs, and start producing our own art and sound for teaching and learning. We must start to reshape, remix, mashup digital content and experience into learning environments. Teaching that does not come from the new information landscape means nothing to our children. They're just playing school (Prensky).
- We must learn to harness the new energy. Venture capitalist and founding CEO of Sun Microsystems, Vinod Khosla, was recently asked about the future of content. He said that...

“I can't see that far. But one thing that I can say, is that I suspect it is going to be in the company or companies that can grow and maintain audiences. Content today is the dominant thing. (But) I think we will start to see people who can aggregate audiences in interesting ways.” (Khosla)

The path to success

Success has come to those who produced and/or owned the content. Khosla is suggesting that success, in the future, will come to those who can maintain the audience into a **content engine**, because it is from the audience that the information comes in a read/write world. He is also saying, if I might extrapolate, that relevant education will happen less when teachers and textbooks are used to deliver learning, and more when we can maintain our classrooms into **learning engines**.

If we can no longer rely on gravity to drive meaningful learning – *and we can't* – then we must find new forms of energy to turn our classrooms into **learning engines**. The energy comes from two places. It comes from our students, energy that we must cultivate and refine, and it comes from the energy that is generated by the learning engine.

Students enter our classrooms with four sources of energy, each of which we can stifle or encourage. It comes from:

- Natural curiosity, which must be mined and tapped;
- An intrinsic need to communicate and influence other people, which must become a part of the learning engine assembly;
- Grounding in heritage, which was far easier to accomplish in the golden age of TV than it is with the MySpace nation;
- Orientation to the future, an easy source of energy that must be explicitly encouraged.

In addition to the energy that students carry with them, we must also examine the possibilities of building classroom learning engines that generate their own energy, and the best place, I believe, to look for examples is video games. We, as educators, are finally beginning to pay serious attention to video games. Part of it is probably the fact that many of the teachers in our classrooms today grew up playing video games. Part of it is the amazing sophistication of many video games today, impressive even to those of us who lost interest after Pong.

It is crucial, though, that we resist the temptation to look only at the game, and instead, study the experience. It is the experience that students learn from, not the graphics and sound. It is the experiences that we might integrate into our classrooms, because we will not be filling classroom time with video games.

What we can learn from video gaming

I want to suggest five elements of the video game experience that makes it both compelling and instructionally potent.

Responsiveness

I suspect that this is a signature component of most video game experiences and also a core characteristic of being young today. Video games, Instant Messaging, social networks, and SMS (text messaging) are far more responsive to youngsters than anything from my childhood. These responsive information landscapes, where children play, are intensely instructional. They are learning engines.

Convert-able and convers-able rewards

We reward student work and successful learning with grades. However, grades hold value mostly to their parents, to teachers, and, increasingly, to the government. In video games, students work to increase their level. They value their level for two reasons. One is that it gives them something to talk about. I often overhear

conversations between video gaming youngsters where they are announcing the levels they have achieved in different games. They will then share strategies and short cuts that they discovered or invented and discuss alternatives. Secondly, the level influences the gaming experience. When a student moves to a new level, the game environment frequently changes dramatically. Perhaps you move from a dank cavern to a beautiful shoreline, or the surface of another planet.

Personal investment

One of the early lessons learned by video game developers was that players will return to a game that they have invested in. Many of today's games require players to generate currency. It might be health points, extra powers, or an inventory of tools or weapons. It may also be currency, money that can be traded for goods and services within the play of the game. The student must invest time, skill, and learning into the game to increase their level. When we have invested ourselves, we come back.

Identity building

One of the interesting aspects of many new video games is the players ability to customise their presence. One game that I have played with some regularity is called 1080, a snow boarding game. It's simple, you play against gravity. I can handle that. But the player can choose his board, its decoration, his/her clothing (and gender), name, and other aspects. In the car racing games I've watched, players can customise their vehicles to an amazing degree of specialisation. There is a compelling sense of personalisation in the player's experience.

Dependability

There is a sense in most video games that the answer to the question or solution to the problem is always there. It is simply a matter of finding or reasoning through the answer or solution. A classroom should work the same way, with a ubiquitous sense that the answer is always close by, that it merely means turning over the right stone, and knowing the stone is a matter of logic and prior knowledge.

Conclusion

Changing our classrooms to reflect a new world and a new future will not come from legislation. It will come out of a growing and ongoing conversation between professional educators, who observe, reflect, invent, discuss, and continue to grow. The conduit for that conversation is emerging as you read this book and as creative and resourceful people continue to invent new applications for the Read/Write Web.

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Web 2.0 as a teaching toolset for creativity and innovation

By Joel C. Yuvienco, JD/MBA

*In this report, Joel describes the use for a different set of tools from the usual old standees of office software. Read about **real** problem-solving, with some project management thrown in to boot.*

Abstract

This chapter demonstrates how web-based social software serves as a useful toolset for enhancing the learning environment in a college course in creativity and innovation. Course expectations were aimed at generating creative sparks from participants., No prior successful completion of general education subjects was assumed, much less required. However, higher order skills like analysis and synthesis were encouraged. The course was structured around the four Ps of Creativity and Innovation, i.e. Person, Press, Process, Product. However, each learner was offered diverse opportunities to pursue his or her personal learning adventure. While primarily experiential, this course helped the participants to get a handle on the interplay of theory and practice. The focus was on Web 2.0 websites, otherwise known as the Read/Write Web, because of the inherent nature of the domain of creativity which encourages mutual feedback and cooperation, enabling successful product innovation. Sample sites that were used are listed and described below:

- YouTube (<http://www.youtube.com>) extends to the learner the functionality of a video show and tell: showing an audience something and telling them about it, especially in an education context where it's used as a means of introducing children to speaking in public.
- The websites <http://www.whynot.net> and <http://www.halfbakery.com> allow the user to create an account to post original ideas and comment on other participants' ideas
- The Invention Database (<http://www.inventiondb.com>) operates as a repository of ideas and projects.

Inspiration for blue sky ideas, proof of concept or even early commercialisation stages was benchmarked against thematic ideas from <http://www.makezine.com> and <http://www.boingboing.net>.

Hacking² (the legitimate kind) and modding³ (or customisation) were encouraged. Team inventions were uploaded in <http://www.instructables.com>, where each invention/innovation project could be showcased visually and descriptively as an academic exercise for possible patenting purposes.

Introduction

This chapter discusses some of the lessons learned during an undergraduate course I taught at De La Salle-Canlubang, South of Manila. Creativity and Innovation was offered on the third term of school year 2005-2006, and 30 students from the School of Management and Technopreneurship enrolled on the course.

The broad objectives of the course centre on giving the students the ability to understand the principles and practices of Creativity and Innovation. Course

² Defined as both (1) elegant, skilful programming or modification of systems, and (2) unlawful or inappropriate exploitation of systems.

³ Defined as modifying a piece of hardware or software to achieve additional functionality.

expectations were aimed at generating creative sparks from participants. No prior successful completion of general education subjects was assumed, much less required, but was desirable.

In the process the students were guided in acquiring proficiency in the use of blogs and collaborative Web applications, while engaging in a critical analysis of the diverse elements of Creativity and Innovation. The class were also asked to apply their newly acquired social software skills and knowledge to promote their invention/innovative ideas. The dynamics and outcomes of the course are discussed below.

Key components

- Course Syllabus: identifies the reading assignments, schedule, and other course requirements.
- Course Toolset: diverse websites with Read/Write functionality.
- Course Output: consists of links to individual and group submissions as well as a portfolio of printed discussions and a journal.

Course structure

The syllabus identified the expected individual competencies on successful completion of the course:

- Define and analyse the creative process.
- Understand the roles and needs for creative/innovative approaches in business.
- Recognise the benefits of the application of personal and group creativity/innovation techniques in diverse situations.
- Understand how creative/innovative approaches, techniques and attitudes help in personal change and development.

The class operated as a collaborative learning community that encouraged working online as well as offline.

On a personal level, the class was exposed to questions such as: What does it take to be creative and innovative? How does one measure the results of creativity and innovation? How could an idea generation technique work? What could I do to innovatively find solutions to problems or situations?

Additionally, students worked on group projects which explored how functionalities closely associated with the (then emerging) concept of Web 2.0 can be used as an effective toolset for learning creativity and innovation. Web 2.0 refers to “a second generation of services available on the [World Wide Web](http://en.wikipedia.org/wiki/World_Wide_Web) (http://en.wikipedia.org/wiki/World_Wide_Web) that lets people collaborate and share information online. In contrast to the first generation, Web 2.0 gives users an experience closer to desktop applications than the traditional static Web pages.”⁴ It has become a popular internet label in recent months as a result of O'Reilly Media Inc.'s vigorous involvement in conferences promoting the use of diverse Read/Write Web functionalities. Note that no effort is made in this chapter to endorse the initiatives and activities of O'Reilly Media Inc. and its partners, particularly in connection with the term Web 2.0.

⁴ http://en.wikipedia.org/wiki/Web_2

Blogs and collaborative web applications

Wikipedia (<http://en.wikipedia.org/wiki/Blog>) defines **blogs**, a short form of weblog, as: “a website where regular entries are made (such as in a journal or diary) and presented in reverse chronological order (http://en.wikipedia.org/wiki/Chronological_order). Blogs often offer commentary or news on a particular subject, such as food, politics, or local news; some function as more personal online diaries (http://en.wikipedia.org/wiki/Online_diary). A typical blog combines text, images (<http://en.wikipedia.org/wiki/Images>), and links to other blogs, web pages, and other media related to its topic. Most blogs are primarily textual although many focus on photographs (<http://en.wikipedia.org/wiki/Photoblog>), videos (<http://en.wikipedia.org/wiki/Vlog>) or audio (<http://en.wikipedia.org/wiki/Podcasting>). Collaborative Web Applications fall under the generic tool called groupware which Wikipedia defines as “computer-based systems that support groups of people engaged in a common task (or goal) and that provide an interface to a shared environment”. It is also known as Collaborative software. It is the basis for computer supported cooperative work” Such different software systems like mail, calendaring, chat, wikis⁵ belong into this category.”

While a lot of blogs are usually maintained as personal online diary, the fact that they can accommodate comments gives the user the ability to use them as collaborative tools. Thus they indirectly fall into the category of Collaborative Web Applications.

The process

To start the students off on idea explorations, they subscribed with personal accounts at <http://www.whynot.net>, a website on “How to Use Everyday Ingenuity to Solve Problems Big and Small”. It “allows the user to create an account to post original ideas and comment on other participants’ ideas.”



Figure 1.

Besides giving the users the ability to engage in conversations, it allows them to vote on ideas. The voting mechanism enables viewers of the website to see how ideas are ranked. An alternative website, <http://www.halfbakery.com>, was also suggested, just in case the first one was down for reasons beyond the control of the class.

YouTube (<http://www.youtube.com>), which has recently become wildly popular in the Philippines, because of its engaging ability to extend to the viewer the functionality of a motion picture show-and-tell, was shown to the students to demonstrate the fact that proof-of concept can sometimes be more easily understood if done through videos.

⁵ See Section 9 – Ed.

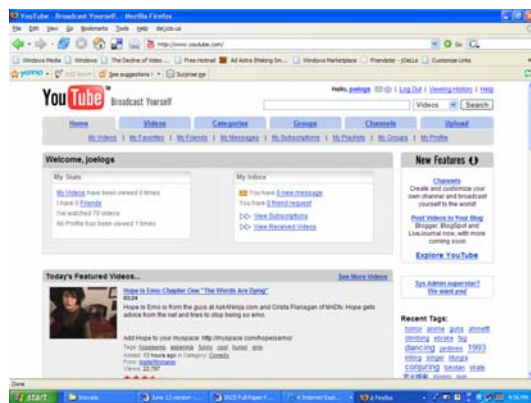


Figure 2

On the level of project management, Inventiondb (<http://www.inventiondb.com>) was introduced to those who might wish to take the idea of project development and management more seriously. Inventiondb.com operates as a repository of ideas/projects, along with the appropriate documentation and resources such as computer programming source code.



Figure 3

Inspiration for blue sky ideas, proof of concept or even early commercialisation stages were benchmarked against thematic ideas from <http://www.makezine.com> and <http://www.boingboing.net>. (Figures 4 & 5)

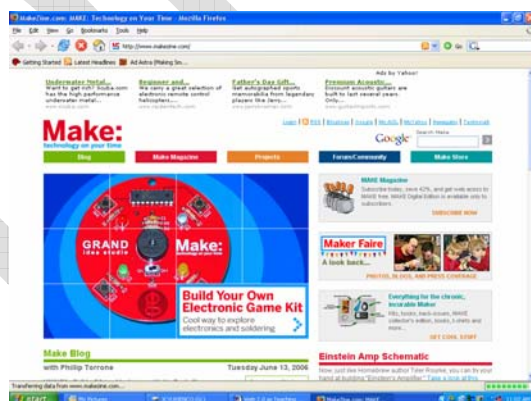


Figure 4



Figure 5

Consistent with the advocacy of makezine.com and boingboing.net, hacking (the legitimate kind) and modding (or customisation) were encouraged. The idea runs parallel to the efforts of a diverse yet growing worldwide community of open source advocates. According to one post, (<http://community.postnuke.com/Wiki-OSBackground.htm>):

“The basic philosophy behind open source is very simple: When programmers can read, redistribute, and modify the source code for a piece of software, the software evolves. People improve it, people adapt it, and people fix the bugs. And this can happen at a speed that, if one is used to the slow pace of conventional software development, seems astonishing.”

Thus by keeping the source code of a project open to a community of users, the project has a better chance of improvement.

Team inventions were uploaded in <http://www.instructables.com> where each invention or innovation project can be showcased visually and descriptively as an academic exercise for possible patenting purposes.



Figure 6

While the above tools were explored on the practical side, the principles around the four Ps of Creativity and Innovation, i.e. Person, Press, Process, Product, were discussed in class. Questions that mirrored those components were served up to the students as guideposts to create self-awareness. Questions such as those mentioned in the course structure above were used to provoke deeper thought and discussion.

Running parallel to these self-explorations was a series of discussions on the diverse standard tools for Creativity and Innovation. Books and traditional websites on the subject are in abundance. The website <http://www.mycoted.com>, which offers a long list of creativity links and material, came in handy. For example, it comes with an A-Z coverage of diverse creative problem solving techniques. This made it easier to assign a technique to each participant for his/her exploration and live demonstration in a classroom setting.

The projects and some learning outcomes

The projects below (Figures 7- 11) are some of the notable submissions from the students. One major benefit of using <http://instructables.com> is that it provided a very user-friendly engine for participation. There are data fields for uploading project pictures and textual explanatory content.



Figure 7

The OREO Milk Dunker is an insulated mug for dunking Oreos into your milk.



Figure 8

Cell phone screen enhancer which is a made-to-order lens that matches the grade of your [prescription] glasses, which attaches right on to the LCD of your cell phone.



Figure 9

A shampoo made of rat's ear grass with ocean breeze scent, specially made for the summer season. A shampoo for everyone. A shampoo made up of grassroots, soapwort water and ocean breeze scent.

The course project submissions also benefited from allowing comments from the subscribing public. This cuts both ways. For example, the cell phone screen enhancer was interesting enough to invite positive as well as negative responses. Comments in diverse forms even accumulated long after the course wound down. The comments which ran from March 27 to May 16, 2006 can be followed at <http://www.instructables.com/ex/i/72DD7C860F471029BC4A001143E7E506/>. In fact, the submissions continue to be open for comments.

But more than accommodating comments from participants, the collaborative affordance (<http://en.wikipedia.org/wiki/Affordance>) of Web 2.0 sites allowed projects to spawn derivative projects. The Oreo Milk Dunker idea inspired the project Toy Cookie Dunking Cup (<http://www.instructables.com/ex/i/60C120DA1AB810299AD7001143E7E506/>) by someone who was not even a member of the class. In fact that evolution drove the owners of instructables.com to create a section on ideas as projects.

Again, beyond learning, by participating in a project contest, four of the students were fortunate enough to win promotional shirts from the instructables.com website owners. This is not to say that they won by the mere submission of projects, but rather by complying with the website's project documentation requirements. The two teams that got honourable mentions are the following:



Figure 10

A way wherein people who usually wake up at night to go to the bathroom or get a drink from the refrigerator don't have to switch on the lights that would probably wake up his or her roommate or the whole household.



Figure 11

The Clapper is a gadget that uses a sound-activated switch sensitive to hand clapping, to turn on and off any appliance that is plugged into it depending on the number of times you clap.

It is also interesting to note that while the Clapper (Figure 11) is not exactly a novel idea, it was the students' ability to create an idea and describe its elements in a manner that adheres to standards (such as the documentation requirements for Intellectual Property registration, for example) that was recognised with these honourable mentions. I consider that a creative way of teaching learners the mechanics of something too technical for their comfort.

Teaching with social software and Web 2.0: some insights

Perhaps some of the experiences and observations of Ulises Mejias (2005) in his work (entitled "Teaching Social Software with Social Software: A report"), are worth echoing and amplifying in the light of my experience with the use of Web 2.0 tools in teaching Creativity and Innovation. I would like to believe that Social Software which "enables people to rendezvous, connect or collaborate through computer-mediated communication⁶ and to form online communities"^{7,8} is intertwined with Web 2.0.

Mejias explored how the current wave of Information and Communication Technologies (referred to less technically as social software) "can enable new forms of study and research, preparing students to participate in networks where knowledge is collectively constructed". At the basic level his class was able to build enough [an adequate?] understanding of the nuances of the enabling power of social software at digital information organisation.

He also discovered that

"beyond the benefits of better information management, the real purpose of [that] exercise was to turn students into contributors, not mere recipients, of knowledge about social software."

Indeed, each of his students became a

"researcher who could add something to [their] study of the topic (while at the same time build their own collection of resources tagged according to their individual classification schemes)."

This is something I could, perhaps, explore further in my future classes, in order to stress the importance of the user as the centre of collaborative activities, more particularly in classroom learning.

⁶ http://en.wikipedia.org/wiki/Computer-mediated_communication

⁷ http://en.wikipedia.org/wiki/Online_communities

⁸ http://en.wikipedia.org/wiki/Social_software

Mejias saw the need to yield his primary role of being an instructor, as the sole source of information. This is something that bears stressing, considering that rapidly changing ICT tools are anchored in the emerging, bottom-up participatory nature of Web 2.0.

He conceded that

“in fact this was beneficial for [him] as well, as [he] became exposed to more research, resources and ideas than [he] could identify on [his] own. [His] interest and knowledge of the topic, in other words, was augmented by the contributions of [his] students.”

Indeed, the statement “in teaching we learn, and in learning, we teach” cannot be truer than within a collaborative environment. In fact, I made sure that I was also part of the registered users of whynot.net and instructables.com, if only to generate broader and deeper conversations.

Mejias recognised that

“[c]ontributing to a pool of resources was one thing, but a detailed examination of social software required a more individualised space for reflection, which is why everyone in the class was asked to maintain a blog throughout the course.”

This is something that I should likewise have done. But for my purposes, the submission in the whynot.net website satisfied the blogging course requirement. I also combined that with the traditional paper and reports that my students assembled, in a folder where they entered their journals and weekly summaries.

I admit that the Web 2.0 teaching toolset that I explored was far from complete. Although it would not have been possible to co-ordinate class tasks and activities without the usual email exchanges, a calendar component would have been nice. In this respect, the Google calendar would be useful.

A wiki, which is by its very essence a collaborative tool, could also make tracking project versions of documents a lot easier. Wikihost (<http://wikihost.org/>) is one fine example. Its site description states:

“Wikis play a constantly growing role of web content distribution. They provide easy to learn and use interfaces for content creation and maintenance. The clue is, anybody from anywhere normally can contribute to a wiki of his interest.”



Figure 12

Likewise, a mechanism needs to be in place for tracking the progress of the students' idea or invention. It doesn't have to be a complex tool that dynamically computes slack and adjusts the project timetable, but should at least take care of the project milestones. This scheduling functionality can best be served by <http://basecampHQ.com/> (although this service is not completely free). (Figure 13)



Figure 13

It is clear therefore that in future incarnations of this course, and in similar courses that can benefit from the Read/Write Web, a functionally rich toolset will naturally be useful and desirable.

One piece of valuable learning I picked up in this course is that participants need to police themselves in order to reduce (if not eliminate) the likelihood that conversations will get too personal. The Web 2.0 tools I used were a public space, and posting should be moderated by the users themselves. Some collaborative websites put in place a flag mechanism to minimise what is commonly called flaming by web trolls or vandals. What this means is that in a more inclusive educational environment users should be able to define and use a “tagging system according to the peculiar culture of the user’s community.”

Except for that small “classroom” management challenge, I’d like to believe that there is a lot of potential for the use of Web 2.0 as a teaching platform. As for the next offering of a similar course, students and teachers alike can look forward to a richer? learning environment. By then, perhaps, we will not even have to call the toolset by the label Web 2.0, but talk of a semantic web where people and machine can talk seamlessly.

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DRAFT

Web 2.0 and inclusion: involving pupils not at school

By Elaine Freedman

In this chapter, Elaine Freedman, whose Specialism is children with emotional and behavioural difficulties, explores the value of Web 2.0 to children who are not in mainstream schooling.

Setting the scene

Picture this; an English market, a Saturday morning. I am doing my weekly food shopping after a hard week's teaching. It is tipping down with rain and I bump into a pupil who has been absent from school for 6 weeks. He's with his mum. I ask what has happened assuming that her son has been very unwell.

"The zip on his trousers broke, I was waiting for the welfare cheque so I to buy him new trousers".

Or how about this. A child goes to secondary school. She is a very bright student from a very poor area. The new school is very impressed with her progress and can see that she could go to Oxford or Cambridge University. She continues to work hard but her health starts to fail school, tries to keep in touch and so do her friends. In spite of the best efforts of the local authority the school the top children's hospital in the country, this child is bedridden in pain. She wants to work but can only do so when the pain allows her to. Gradually as she spends more time away from school her friends drift away. She becomes more isolated and very lonely. The school finds it impossible to set the appropriate work for as it is difficult to know from one day to the next whether the work set achievable.

A child is permanently excluded from school. The nature of his disturbance is such that he cannot be taught in groups. He has a one-to-one tutor. Thus he becomes isolated from his peer group.

A young person is brutalised at home. For his own protection he sleeps in bus shelters in all weathers. His attendance is erratic. He gets caught doing a criminal act and is sent to a young offenders' institution. When he returns to school, he looks happy, healthy and 10 inches taller. He wants to go back there. Why? He was safe and well-fed.

These are not fictional children, I wish they were. These are children I have taught.

As a practitioner you will probably recognise these children Or children who are carers, traveller's children, and those for whom school is a safe place away from child protection concerns.

Invisible children

What do all these people have in common? At some point of there lives they become invisible from the majority of us. They become subjected to discontinuous education. I would argue that this discontinuity helps to disadvantage the already disadvantaged. New relationship-building has to take place in order to aid the pupils learning in whatever context. The facility to blog, wikis podcasts and the other facilities that e- and m-learning⁹ have and will have to offer can help to overcome this break in relationships, by enabling continuity of conversation between teacher/tutor and pupil from the old setting to the new setting. Support from carers, if available to both settings, can also help to enable as much continuity of educational and emotional/ physical support as possible

Social isolation from peers can also be handled by this provision. Research on transition indicates that this is a time at which all pupils are vulnerable. Research on

⁹ Ie mobile learning.

girls' transition indicates that the lack of their friendship group has a large impact on their academic attainment. As to girls' behaviour, when they are troubled the tendency to "act in", as opposed to boys' tendency to act out, makes any emotional upset quite difficult for the classroom teacher to detect. Who may these be in your class? The girls of whom you would say "she's doing her work, she's just unusually quiet at the moment". Girls will act out if the acting in behaviour fails to obtain the required attention to the cause of the upset.

The implementation of the above proposals may help pupils to feel "emotionally held" and supported at a vulnerable time.

For those young people who are rejected and rejecting, such input can help provide an outlet for their creativity

The barriers

There are hurdles to be crossed if such an idea were to be tried. Here are some, and I'm sure you will think of some that I have not considered in this chapter. Not least of these problems is that it seems to me that the world over educationalists are very pressured for time. Certainly in the UK there is a feeling of initiative overload.

Someone would need to take responsibility - who would that be? Within the UK, we have the Every Child Matters Agenda (see <http://www.lulu.com/content/513376>). The suggestions here would fit nicely under this heading. This agenda puts the child at the centre of services and was partly brought about by a horrendous failure in the child protection of a young girl called Victoria Climbié¹⁰. It is often thought to be similar to the USA's "No Child left behind" initiative. However; it appears not to be so as it extends further than just educational attainments.

The usual safety guidelines apply to staff and pupils. They will need to know that these are applied appropriately and also be able and willing to follow them.

This inclusion is limited to the literate, both in ICT (educational technology) and with the written word. Those who are differently abled may be excluded by lack of available facilitators and/or equipment. How would we give access to those who are excluded because of their financial, social, educational or physical circumstances? If you don't have access to electricity then this is not practical.

The idea also emphasises the importance of ICT learning for pupils. We don't know when disadvantage will befall us or our pupils. The earlier in life our young people are e-confident then the more confident we can be as educators that such ideas can be implemented.

When I started teaching, the web as we know it was not even an idea in a teacher's mind. These pupils came and went, from a class teacher's point of view, with no explanation. Today, e-learning and m-learning give us the power and opportunity to maintain contact and help to include them.

This, however, is a different type of inclusion to that commonly referred to in educational circles. Blogs, wikis, fora, and other internet-based tools allow inclusion to the literate across international boundaries. You are being included in a virtual cross-cultural society. When included in your own country, you will generally pick up the cultural values pertaining to that society. What influences will our young people who access a **virtual** society pick up?

¹⁰ <http://www.victoria-climbié-inquiry.org.uk/>

Personal Learning Environments – what they are and why they might be useful

By Graham Attwell

You have probably heard of VLEs – Virtual Learning Environments. In this chapter, Graham Attwell makes the case for PLEs – Personal Learning Environments. In addition, he lists some Web 2.0 tools that he has personally found very useful.

Introduction

The Association of Learning Technology's 2006 conference was dominated by discussions on how blogs and wikis could be used for learning. And there was a buzz around the idea of Personal Learning Environments (PLEs). Someone even suggested that in a few years time we would no longer need the Virtual Learning Environment (VLE). Yet for all the talk there was no consensus on what a Personal Learning Environment might be. The only thing most people seemed to agree on was that it was not a software application. Instead, it was seen more as a new approach to using technologies for learning. Underpinning a number of the discussions was the issue of what role teachers and institutions would play if learners themselves developed and controlled their own on-line learning environment.

This chapter will not answer all the questions. Instead, we seek to explore some of the ideas behind the Personal Learning Environment and consider why PLEs might be useful or indeed central to learning in the future. Of course, this is not so much a technical question but an educational one, although changing technologies are a key driver in educational change.

We will start by looking at the changing face of education and go on to consider the different ways the "net generation" is using technology for learning. We will go on to examine some of the issues around Personal Learning Environments and the emergent trends in the introduction of PLEs.

Lifelong learning

Lifelong learning is hardly a new idea. Arguably, it originated in the workers movement. In the UK, the Mechanics' Institutes, the Miners' Halls, and organisations like the Workers' Educational Association organised classes and courses for workers to improve their own education, as well as providing access to learning resources and social activities. Whilst this provision might aim at developing technical and labour market related skills and knowledge, it was guided by a wider belief in the power of education for emancipation.

The more recent focus on lifelong learning, in say the last thirty years, has been guided by far narrower discourses. Driven by a shorter product life cycle, the increasing speed of adoption and implementation of new technologies in the workplace and the increasing instability of employment with the computer-driven industrial revolution, it was reasoned that workers would need continuous learning throughout their work-life to update their occupational skills and knowledge, or to learn new occupational competences. It was contestable as to who would be responsible for this. Whilst continuing vocational training had previously been the responsibility of employers, and the State was seen as playing a leading role in the provision of continuing education and training, it was now often argued that individuals were responsible for maintaining their own employability, albeit sometimes with the assistance of grants, vouchers and subsidised courses,

If not continuous, learning is now seen as multi-episodic, with individuals spending occasional periods of formal education and training throughout their working life.

The idea of a Personal Learning Environment recognises that learning is a continuing process and seeks to provide tools to support that learning. It also recognises the role

of the individual in organising their own learning. Moreover, the pressures for a PLE are based on the idea that learning will take place in different contexts and situations, and will not be provided by a single learning provider. Linked to this is an increasing recognition of the importance of informal learning.

Informal learning

Informal learning is something of a conundrum. Obviously, we learn throughout our lives, in all kinds of different setting and contexts. Most of this learning does not come from formal educational programmes. Jay Cross (2006) argues that only 10 -15 per cent of learning is formal, that 85 per cent of our learning takes place outside formal settings. Yet there has been little attention paid to informal learning, or to how it takes place (see below for more consideration of this).

In most European countries there have been some moves to recognise informal learning. However, most effort has been expended on trying to assess and certify informal learning. (Whether it then remains informal is a moot point, as is whether most people wish their informal learning to be certified).

There has been interest in informal learning from the corporate world, driven by the desire to capitalise on the intellectual assets of the workforce, to manage organisational knowledge and also in recognition that informal learning may prove a cost effective way of developing competence.

In terms of educational technology, there has been little attention paid to informal learning. It is noteworthy that formal learning technology and applications have only really been made available to those enrolled on an educational programme or to those working for larger enterprises.

The promise of Personal Learning Environments could be to extend access to educational technology to everyone who wishes to organise their own learning. Furthermore, the concept of the PLE purports to include and bring together all learning, including informal learning, workplace learning, learning from the home, learning driven by problem solving, and learning motivated by personal interest, as well as learning through engagement in formal educational programmes.

Personal Learning Environments could also facilitate different styles of learning.

Different styles of learning

It is argued that we all have different styles of learning and approach learning in different ways. Although this would seem self-evident, attempts to theorise and classify such learning styles are less than convincing. Personally, I do not think I have one particular learning style, but rather that I use different learning styles and different “intelligences” in different contexts, different subjects and different knowledge domains, and in response to different learning aims and goals. I might use a different style for solving a quick problem – say how to use Skype for my podcast – than for learning German.

Notwithstanding the problems of the theoretical debate on learning styles, it would appear likely that learners will have preferences for different pedagogic approaches, in according to the learning context.

Implicitly or otherwise, all educational software either enhances or restrains certain pedagogic approaches to learning. There is no such thing as pedagogically-neutral software. A Personal Learning Environment could allow a learner to configure and develop a learning environment to suit and enable their own style of learning.

New approaches to assessment and the recognition of learning

An important development in education in the past period has been the translation of qualifications into outcomes and competences. It is beyond the scope of this chapter to explore the full implications of these developments, or to go into the discussion of what

exactly competence **is**. From the point of view of the PLE, the importance lies in the separation of the outcomes forming a qualification from the learning programme which develops competence for such outcomes. This means that learners are no longer necessarily locked in to a particular course in order to gain a qualification, but are able to present their learning to prove they possess such competencies, or are able to achieve those outcomes. This means that learners could select evidence and artefacts from the PLE to present for qualification purposes.

It is also important to note that formal qualifications are increasingly only seen as one aspect of competence, at least for employment purposes. Increasingly, employers also wish to see evidence of the ability to apply skills and knowledge in a particular context. PLEs could facilitate such presentations, in an extended form of an e-portfolio and through links to an e-portfolio.

Changing technologies

In this section I will look at two developments in technology which I think are of particular significance for the development of Personal Learning Environments – ubiquitous computing and the development of social software.

Ubiquitous computing

The term ubiquitous computing refers to two technological developments. The first is the increasingly ubiquitous nature of internet connectivity with the development of wireless and GSM networks, as well as the spread of broadband, resulting in the expectation that connectivity will become available almost everywhere in the future. It is also expected that devices will be able to search for available networks and seamlessly switch to utilise them. The second and associated use of the term refers to the many different devices now able to access the internet, including mobile communication devices such as PDAs¹¹, but also household appliances and industrial and electronic tools and machinery.

The development of ubiquitous computing may offer new opportunities for the use of ICT for learning.

Previously occupational and vocational learning has been divided between the theory and knowledge bases to be acquired in training schools, and the practice which often takes place in the workplace. With the use of mobile devices and the spread of connectivity, it is at least theoretically possible to bring this learning together, and to access theory and knowledge in the context in which it is to be applied – in the work process. Secondly – and possibly more important from a didactical point of view – is the embedding of computer based communication within the tools of the workplace. This offers the opportunity to develop learning environments whilst simultaneously accessing and shaping the production and business process through such interfaces.

In other words, the context in which learning takes place becomes the context in which the learning is to be applied, and the nature of the learning interface – or the learning materials – become the occupational tools with which the (work process) knowledge is exercised .

Whilst ubiquitous computing is not yet fully developed, there are a number of pilot activities with the use of mobile devices and with new interfaces to learning and working.

Key to an understanding of the potential of such devices is the idea of being able to shape the work process through the application of occupational knowledge whilst shaping the learning process through carrying out work processes.

¹¹ Personal digital assistants – ie handheld computers, sometimes known as “palmtop devices”.

Ubiquitous computing also facilitates participation in dispersed communities of practice and collaboration between different enterprises in providing training (although arguably such opportunities already exist without it).

PLEs can develop this potential by facilitating access to learning in different contexts and using different devices and interfaces. Also, PLEs can bring together learning acquired in different contexts.

The changing ways in which we learn

When any new technology is introduced we tend to ape older paradigms in implementation. Consider the motor car. It was initially called a horseless carriage and the law demanded a man walked in front of it carrying a red flag. So it is with educational technologies. The development of the internet gave rise to the virtual classroom and the virtual university. Institutions sought to control internet-based learning through Learning Management Systems and Virtual Learning Environments. Slowly we are coming to realise that we cannot simply reproduce previous forms of learning – the classroom or the university – embodied in software. Such environments can be pretty sterile places, and, of course, young people realise this. Course-based bulletin boards can be very lonely.

Slowly we are discovering – or rather learners are discovering – new uses of the technologies for learning: instant messaging, file sharing, social networking. And, of course, blogging. A growing number of reports have documented how the “net generation” use computers in their everyday life. Moral panics have emerged about the amount of time spent in front of the computer, and the dangers of open internet access. When researching this chapter, I found a newspaper article from the 1950s worrying over the time young people were spending outdoors playing sports! There seems to be a timeless pattern of new generations finding new trends about which to panic (my own parents railed against my long hair and my loud and strange music). As so often happens when confronted with something new, the reaction of the education systems is to control and to ban it. Young people are told to turn off their mobile phones to go into their lessons on communication! The US government is debating a law banning access to social networking sites in educational establishments.

But it is not just the appeal of communication which is drawing young people to these technologies. It is the ability to create, to share ideas, to join groups, to publish – to create their own identities which constitute the power and the attraction of the internet for young people.

Of course, it could be asked what this has to do with learning. To a large extent, it depends on definitions of learning. If we say that learning is an activity which takes place within an institution and guided by qualified teachers, then of course it has little relationship. But if we take a wider definition of learning as purposeful activity which leads to changes in behaviour, then a great deal of learning is taking place.

I am not convinced that this is a net generation thing. Research I undertook into the use of “e-Learning in Small and Medium Enterprises” found little take-up of formal courses. But we found widespread use of the internet for informal learning, through searching, joining on-line groups and using email and bulletin boards. Google was the most popular application for learning. Age was not a factor. In fact, older workers tended to make more use of ICT for informal learning, probably because they had more responsibilities in their work, better internet access and more opportunity to organise their own work.

There is a major issue in that everyday informal learning is disconnected from the formal learning which takes place in our educational institutions. For younger people there is a danger that they will increasingly see school as a turnoff - as something irrelevant to their identities and to their lives. Personal Learning Environments have the potential to bring together these different worlds and interrelate learning from life and learning from school and college.

What does a Personal Learning Environment look like?

In the introduction I said that a Personal Learning Environment was not an application. A PLE comprises all the different tools for learning we use in our everyday life.

Many of these tools will be based on social software. The term “social software” is used here in the meaning of software that lets people rendezvous, connect or collaborate by use of a computer network. It supports networks of people, content and services that are more adaptable and responsive to changing needs and goals. Social software adapts to its environment, instead of requiring its environment to adapt to software. Social software underpins what is loosely referred to as Web 2.0. Whereas what we might refer to “Web 1.0” was largely implemented as a push/pull technology – to allow access to information on a dispersed basis – Web 2.0 is a two-way process, allowing the internet to be used for creating and sharing information and knowledge, rather than merely accessing external artefacts.

Social software is increasingly being used in education and training, through such applications as web logs, wikis, tools and applications for creating and sharing multi media, and tools for sharing all kinds of different personal knowledge bases including bookmarks and book collections.

If we are to use different applications, individually configured, then standards are critical for allowing one application to talk to another. Rather than monolithic vendor-driven and designed applications, Web 2.0 and social software are based on the idea of “small pieces, loosely connected”, utilising commonly-recognised standards and web services for linking ideas, knowledge and artefacts.

Social software offers the opportunity for narrowing the divide between producers and consumers. Consumers become themselves producers, through creating and sharing. One implication is the potential for a new ecology of “open content”, books, learning materials and multimedia, through learners themselves becoming producers of learning materials.

Social software has already led to widespread adoption of portfolios for learners, bringing together learning from different contexts and sources of learning, and providing an on-going record of lifelong learning, capable of expression in different forms.

The idea of a Personal Learning Environment is also based on the ability to aggregate different services.

The list below is of the software I use for my personal learning environment.

- Word processor for writing papers like this – Nisus Writer Express (<http://www.nisus.com/>);
- E-mail client for communication – MacMail (<http://www.macmail.com/>);
- Diary for managing my work and sharing with others – iCal (<http://www.apple.com/macosx/features/ical/>) linked to my web site;
- Audio for making podcasts – GarageBand (<http://www.apple.com/ilife/garageband/>);
- Video editor for making multi media presentations – iMovie (<http://www.apple.com/ilife/imovie/>);
- Weblog client for various blogs I contribute to – Ecto (<http://ecto.kung-foo.tv/>);
- Content Management System for creating websites – Joomla (<http://www.joomla.org/>);
- Personal Weblog – KNotes (<http://www.knownet.com/products/downloads/knotes/>);
- Photo editing programme – iPhoto (<http://www.apple.com/ilife/iphoto/>) (and plug in for uploading to Flickr – see next item);

- Photo sharing service – Flickr (<http://www.flickr.com>);
- Web Browser – Firefox (<http://www.firefox2.com>);
- Bookmark sharing service – <http://del.icio.us>;
- Podcast publishing – Joomla plug-in;
- Presentation software – Keynote (<http://www.apple.com/iwork/keynote/>);
- Newsreader – Net Newsreader (<http://www.newsgator.com/Individuals/NetNewsWire/>);
- Instant messaging and VOIP – Skype (<http://www.skype.com/>);
- Search engines – mainly Spotlight (<http://www.apple.com/macosx/features/spotlight/>) and Google (<http://www.Google.com>);
- FTP client for sharing multimedia files – FileChute (<http://www.yellowmug.com/filechute/>).

I also use a number of other applications for creating and editing graphics; a number of other services from different social software companies; and, of course, the operating system itself for managing and storing files. This is a lot of software. I use an Apple Mac with an OS X operating system. Apple has become increasingly good at allowing data to be transferred between the different applications, but it can be a little difficult to predict what will work with what!

This is a powerful Personal Learning Environment. But, all this software takes a lot of setting up, configuring and maintenance. At the present time, it is probably beyond the average learner (or teacher). However, we are seeing the development of a number of application which provide a framework and tools to facilitate the use and aggregation of different services. The open source Flock browser (<http://www.flock.com/>) is one such programme. The ELGG (<http://eduspaces.net/>) environment is being widely implemented in educational institutions. ELGG is also a free open source application. Both Flock and ELGG are based on open standards and open APIs¹² allowing users to “plug in” their own favourite tools, and providing interoperability with other applications.

Personal Learning Environments – what they might be useful for

The development and support for Personal Learning Environments would entail a radical shift, not only in how we use educational technology, but in the organisation and ethos of education. Personal Learning Environments provide more responsibility and more independence for learners. They would imply redrawing the balance between institutional learning and learning in the wider world. Change is difficult, but it is probable that the rapid development and implementation of new technologies and social change make change in our educational provision inevitable.

There are also many unresolved issues, including who provides technology services, security of data and of course the personal safety of students. Notwithstanding these issues, we are beginning to see how these new tools might practically be used in education, especially through wide-scale experiments in the use of blogging.

Some education institutions are providing blogs for all students and encouraging their use. This is not linked to any course as such. Rather, blogging is seen as an important activity for communication and the development of ideas. Launched under the banner of “Persuade, Promote, Publish”, the University of Warwick aimed to provide students and staff with an easy method of publishing a personal web site.

¹² Application Programming Interface – see <http://www.webopedia.com/TERM/A/API.html>

“There are many different uses for blogs at Warwick”, they say, “from developing an essay plan, to creating a photo gallery and recording your personal development process. Blogs have been designed as a tool that will be useful for staff in research and teaching, and have many different applications in e-learning.”

A publicity campaign was planned and delivered to coincide with the launch of the blog system.

An important and brave part of the Warwick experiment was the absence of censorship. Subject to normal blog use rule, students are free to publish what they wish and there are a number of reports of flame-wars having broken out! As at 11 September 2006, there were 4042 blogs with 73380 entries, 9167 tags, 168753 comments and an amazing 99534 images.

Warwickblogs is built on the blogbuilder system. Similarly, Brighton University is planning to provide all students with an ELGG account which will be for their own personal use, independent of curricular activities.

Many institutions are experimenting with the use of blogs and other social software tools in a more restricted environment, as part of the curriculum. One interesting issue is the extent to which “communities” continue after the end of a particular course. This also raises questions about what responsibilities institutions and teachers or moderators have for supporting such learning outside course times.

Other institutions are attempting to provide a form of Personal Learning Environments linked to institutional Learning Management Systems. The New Zealand government has funded a project to provide an integration layer between the open source Moodle VLE (<http://moodle.org/>) and ELGG. The system is being piloted with nine institutions, with the intention of rapidly extending provision following the pilots.

“Our plan”, they say “is to create a learner centred e-portfolio system that sits outside of the Learning Management Systems. It will serve students from right across the sector and not be institutionally-aligned. This is analogous to the informal learning that takes place outside of a classroom at a ‘bricks and mortar’ campus.”

Course-based learning outcomes can be exported directly into ELGG, with a single sign-on providing access to both systems. A big advantage is that when the students move institution they maintain their own ELGG account.

A further potential application for PLEs is for self-supported and peer group learning. Massachusetts Institute of Technology (MIT) have provided free access to all their course materials. OpenCourseWare (OCW) is, they say,

“a large-scale, Web-based publication of the educational materials from the MIT faculty’s courses. This unique initiative enables the open sharing of the MIT faculty’s teaching materials with educators, enrolled students, and self-learners around the world. MIT OCW provides users with open access to the syllabuses, lecture notes, course calendars, problem sets and solutions, exams, reading lists, even a selection of video lectures, from 1400 MIT courses representing 34 departments and all five of MIT’s schools. The initiative will include materials from 1800 courses by the year 2008.”

MIT does not provide any teaching or facilitator support for their courseware. But, since autumn 2006, they have been using a customised version of ELGG, allowing learners to develop their own portfolios and to gain peer group support through the networking functionality¹³. This experiment may prove a model for how institutions can provide wider learning support for communities of practice.

A number of institutions are looking at the potential of PLE-type applications for Continuing Professional Development. In large institutions there may be little interaction and communication between staff in different departments. In other

¹³ See <http://ocw.mit.edu/index.html>.

dispersed institutions there are still greater problems in communication. Klagenfurt University started to pilot the ELGG-Moodle integration for professional development for all staff in autumn 2006.

Indeed it may be that PLEs offer considerable potential for knowledge development and sharing and what has been called “organisational learning”. For some time, researchers have been aware that much knowledge in organisations is tacit. Nonaku¹⁴ and John Seely Brown¹⁵ have both looked at models about how tacit knowledge can be externalised, and how knowledge spirals can lead to the development and externalisation of new knowledge. However, learning and knowledge development have been seen as residing in separate domains. PLE toolsets, used within companies, have the potential to facilitate training and development, and at the same time develop organisational learning within the enterprise.

Final thoughts

Personal Learning environments are not an application but rather a new approach to the use of new technologies for learning. There remain many issues to be resolved. But, at the end of the day, the argument for the use of Personal Learning environments is not technical, but rather philosophical, ethical and pedagogic.

PLEs provide learners with their own spaces under their own control to develop and share their ideas. Moreover, PLEs can provide a more holistic learning environment, bringing together sources and contexts for learning. Students learn how to take responsibility for their own learning. Critically, PLEs can bridge the walled gardens of the educational institutions with the worlds outside. In so doing, learners can develop the judgements and skills or literacy necessary for using new technologies in a rapidly changing society.

¹⁴ See http://www.knownet.com/writing/weblogs/Graham_Attwell/entries/1901963406

¹⁵ See <http://www.johnseelybrown.com/>

Social networking for grown-ups: an evaluation of Ning

By Terry Freedman

What is this thing called "Ning"?

I've been playing around with Ning (<http://www.ning.com>), which seems to be the "in" thing at the moment – well, it was last week anyway. To understand what Ning is, think MySpace. It's a way of connecting people with a common interest, and there is plenty to interest people in education.

It is, in short, a social networking site. Or, rather, it's a site that enables anyone to create their own social networking site.

Like MySpace it has certain features, such as a blog feature and the facility for uploading photos and videos. Unlike MySpace it has a forum facility and it seems easier to customise. Well, easier for oldies like me, at any rate.

It's dead easy to set up your own community: I've set up two without needing any technical know-how at all. I'll come back to them in a second.

The networking bit

So, where does the "networking" aspect come in? in three ways. Firstly, you can join communities as well as or instead of creating them, which means that you have different places in which to meet like-minded people. Secondly, you can add people as "friends". Thirdly, you can click on a person's name and see what communities *they* belong to, and join them if they seem likely to be of interest.

On the whole I like Ning, but it does have some annoying "features", the most frustrating of which, for me, was the lack of a batch delete facility for pictures. I inadvertently uploaded nearly 200 ones that had nothing to do with the subject matter, and had to edit each by hand. It took ages. However, the Ning people are promising a batch edit/delete facility soon.

I think that to understand phenomena like MySpace you have to experience them, and this is a good, ie easy and harmless, way of doing so. So far I haven't been pestered by people purporting to be teenaged girls from Russia or anything like that, which I **have** experienced in MSN and Yahoo's Instant Messenger.

Also, the community-style interface does lend itself to discussion and the posting of resources.

The two communities I've set up are one for the second edition of Coming of Age, at <http://comingofage.ning.com> and one specifically for readers of my newsletter (Computers in Education) and visitors to the ICT in Education website (<http://www.ictineducation.org>). That's here: <http://ictineducation.ning.com/>.

I've started a discussion about the internet, and provided links to (t the time of writing) 4 videos which you may find interesting. What I'd like to do is invite you to experiment with me in using this kind of resource. Join the Coming of Age community by going to <http://comingofage.ning.com>, and then you'll be able to contribute to the discussion, start a new one, add videos yourself and view the ones already there.

I think that used wisely this sort of thing can save time, even though it seems time-consuming at first. Certainly for my own part I've discovered that a few exchanges with others can save hours of tracking down useful stuff.

The \$64,000 question: what's in it for me?

It's generally recognised these days that things get done better, in some sense, if people feel part of a community. There is now much more emphasis on, and belief in the value of, peer-to-peer interaction than teacher-student/student-teacher interaction. That's not to say that the latter is unimportant, of course, but a recognition of the fact

that people can and do learn from each other. I should point out, too, that the “student” referred to just a moment ago could also be a teacher, if the context is professional development.

Ning communities therefore represent a fairly low-cost means of interacting with, and learning from, people similar to yourself.

The nice thing about all this from the point of view of the community “owner” is that it’s not dependent on that one person. In the Coming of Age community, for example, I’ve kick-started it, but it’s really up to the community, ie you, whether this becomes a useful port of call or not.

Let’s be friends...

Ning communities, like other social networking set-ups, are very much based on the birds of a feather principle, ie: If I belong to community X, and so do you, we must have something in common.

By becoming “friends”, we get to see not only the other communities we each already belong to, but also any that we subsequently join. You could do that without becoming friends, but once the number of like-minded people you come across exceeds about a dozen, I’m not sure how you would remember who they all are.

Clearly, it does stretch the definition of “friend” somewhat, but that’s just a detail: it’s the principle that matters.

... but with discrimination

Of course, everybody likes to be popular, and given that one way of measuring a person’s popularity is counting the number of friends they have. The same is true in the virtual world, but there is a problem here. Young people may try to collect as many “friends” as possible in their online social networks, but not always in the best possible way. For example, posting sexy pictures of herself would be a good way for a girl to accumulate “friends”, but not necessarily the most sensible.

I actually believe that many young people already know that (read, for example, Sarah Hillier’s evaluation of MySpace, in Section 11). But I think there is an insidious aspect to all this in that all of these social networking sites do tend to encourage a view of friendship which is very utilitarian, ie predicated on the “what’s in it for me?” question. Maybe that’s fine if everyone knows upfront that that’s the whole point of it, which is the case with Linked-in (<http://www.linkedin.com/>), for example. This openly describes itself thus:

“Our mission is to help you be more effective in your daily work and open doors to opportunities using the professional relationships you already have.”

I’m not convinced it’s a great idea for 14 or 15 year-olds to start to get the idea that friends are people who are there to be used. But, in the age-old tradition of talking and answering oneself, I have to say that I take a much more sanguine view than that, especially in light of the fact that most of the young people I come across are **so** sensible and worldly-wise that I almost start to worry about the opposite issue: whatever happened to the innocence of childhood?

But perhaps it’s just in the nature of older generations to worry about younger generations, regardless of the facts of the matter!

Conclusion

In conclusion I’d say that Ning is promising in itself, and that you should try it in order to gain some insight into what young people experience in MySpace etc. Or, to put it more commonly: don’t knock it if you haven’t tried it.

Here are my URLs once again: <http://comingofage.ning.com> and <http://ictineducation.ning.com>. See you online, I hope!

Learning networks in classrooms

By Clarence Fisher

We've looked at online social networking and personal learning environments. Here, Clarence Fisher looks at the potential of creating learning networks in the classroom itself.

Information sources: then and now

When I was a kid growing up in an isolated Northern Canadian town, I remember my family gathering around the TV each week to watch the show M*A*S*H. This show chronicled the exploits of a medical unit of the U.S. Army during the Korean war. It was hilarious and was tuned into by millions, enjoying a market share of viewers envied by the networks today. We had only two television channels in our community until I was about ten years old. My own kids, on the other hand, have satellite TV bringing hundreds of channels into our home as well as a high speed internet connection which allows them access to the world.

According to Chris Anderson's recent book *The Long Tail*¹⁶, the number one television show today in North America (CSI) does not garner enough audience share to even have entered the top 10 in the 1970's. The same is true with music. We have countless options more than we used to, which splits and fragments audiences into much smaller pieces. On the other hand, this allows us as consumers of information and entertainment to find things that are more interesting and meaningful for us.

These are the kids who are in our classrooms. For many of them, their reality is the same as that of my own children. They are accustomed to having access to basically unlimited amounts of programming and online information. Their music collections may be huge and eclectic. Many of these students are consumers and producers of information who find people around the globe who have the same interests they do in music, television shows, comic books, digital photography, etc. It is common for them to find people to learn from, trade ideas with, and collaborate on new projects with.

Yet in their classrooms, their "official" learning lives, are much different. Classrooms are often places walled off from multiple channels of information. They are places where kids have to work alone using the few "official" sources of information that are given to them by their classroom teachers. They have little control over the information they have access to, or the tools they can use for learning.

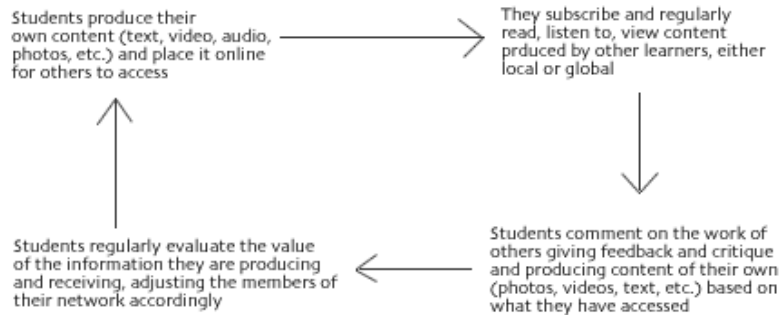
The need for a personal learning network

In our complex globalised society, this is simply unacceptable. Students often have the skills and the access to a changing set of tools they can use to form networks on their own, and yet we do not capitalise on this in our classrooms to benefit their learning. Beyond allowing them to use skills they may already have, it is important that students learn to form fluid learning networks that change as they need them to, allowing them access to information, to voices, to learners around the globe who they can relate to, learn from, and grow with. This is a vital skill for our time.

To form a personal network of learners, students require access to a few basic tools. They need a blog where they can post their thoughts, learnings, and reflections, writing themselves into the public life of the commons. Having a space such as this for their own thoughts is important for students, but it is just as important that they write in public, for an audience who is able to find their work and comment on it, driving them forward in their thinking and learning. Students also need access to an RSS aggregator such as a Bloglines (<http://www.bloglines.com>) account. This is a vital piece of the puzzle. With an aggregator, students can subscribe to the blogs, podcasts, photo

¹⁶ See my review of this book in Section 19.

essays and videos of others, allowing them to regularly receive the content created by others in one convenient place. An aggregator will allow students to find other learners they identify with, and who are valuable for them. Over time, some of these other voices become trusted nodes of information; people they can rely on to post content which resonates with them, and which drives their thinking into deeper places¹⁷.



As well, when students use an aggregator, teachers can require them to subscribe to feeds about a certain topic or written by a certain person.

Anything these people publish then becomes required reading for

your students. Most textbooks and pieces of reading that students are assigned can be dry, difficult to manage, and quickly grow outdated, leaving recent world news and events far ahead of classroom resources.

But if students have access to an aggregator and the teacher assigns a certain blog, photo, or podcast feed as required material, students instantly have access to the voices of people who may be living lives very different from their own. Students may receive daily news from a small African hospital where medical staff struggle to support a community with an HIV/Aids infection rate of over 40%, they may read blogs written by people who live in war zones and are struggling to survive, or they may read the daily thoughts of people living in vast and burgeoning nations such as India and China.

Given voices like these in their aggregators on a constant basis, it makes the lives of people in places very different from their own real, and it makes prejudicial attitudes towards others very hard to stand by. Reading the blogs, listening to the podcasted voices, and seeing the photos taken by others from around the world brings down walls of misunderstanding and promotes a much vaster global perspective.

Personal learning networks are not enough

But there is more to helping students form personal learning networks than simply having them produce their own content and receive that of others. Just as throwing a group of people together in one space does not make them a team, placing kids online and asking them to write and read the work of others does not make them a network. One of the most essential steps of this type of work comes through students responding to the work of other people. They need to learn how to write helpful comments. They need to learn to write their own posts building on ideas created by other people. Students need to learn how to become network supporters and builders.

Finally, students need time to reflect on what they have written, and how they have responded to the work of other

¹⁷ See Section 2 for chapters about RSS and aggregators.

people. Teachers need to question students about the wealth of their network and what they are gaining from being a part of it. Students need to spend time reflecting on how they are supporting the discussions and learning of all of the group members of their network. How are they pushing their own thinking and that of other people in their network through their comments, critique, and through their own work? It is essential that students spend time thinking about the voices who are in their network. Are they achieving the maximum benefit possible from belonging to this network? Is there another voice they know of, or that the teacher can suggest to the student that would benefit the student? It is important that personal networks of learning are fluid, with voices that come and go as needed for the maximum learning benefit of the student.

The role of the teacher

But what about teachers? What is their role in this type of learning? We may not have all of the answers, but one of our roles is still that of expert, even if we are learning how to use many of these tools along with our students. We can help students respond to posts in ways that are critical and filled with critique, but which are still appropriate and respectful of others. We also need to help our students seek out new voices when they need them, and help them to evaluate the power and truthfulness of those they choose to listen to. Teachers have a vital role in the creation, support, and the long-term value and success of the learning networks of our students. As teachers, we need to be the “network administrator” for our students; guiding them, supporting them, questioning them about the wealth and power of what they have found. It is a new role and one we need to experiment with and learn about.

It is OK to not have all the answers before we begin. We can be learners in our classrooms and experts at the same time.

Implementing Web 2.0 in the classroom

By Victoria A. Davis

OK, so you're convinced: Web 2.0 is definitely something you wish to use with your students. In this chapter, Vicki Davis, suggests how to get started.

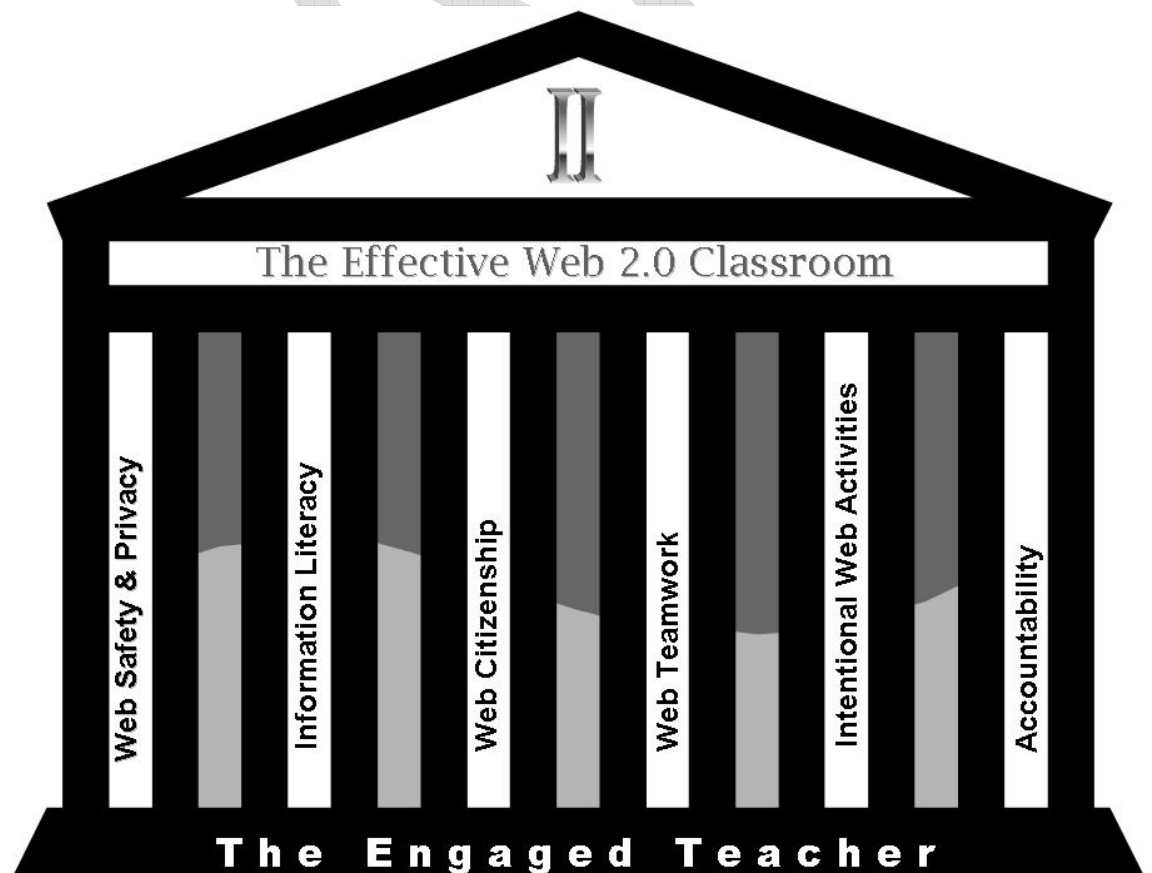
Passivity vs participation

Which is more engaging on a daily basis: **looking** at art or **creating** artwork, **reading about** a science experiment or **doing** an experiment?

Any educator will tell you that **hands-on creation** captivates kids of all ages! I liken Web 1.0 (or the first generation of the internet) to just looking at artwork. In contrast, Web 2.0 is like letting students paint! It is messy, but more fun and engaging! Like "hands on art," this is the "hands on internet." I have found it to be engaging and conducive to teaching difficult subjects.

While most research has focused on the individual tools used in Web 2.0, very little encompasses the true nature of the emerging web. Arguably, Web 2.0 encompasses any type of new content creation technology: blogs, wikis, podcasts, video-sharing, photo-sharing, web page creation, social bookmarking, cell phones, iPods and more. Notice that I include technologies like cell phones in this definition. To me, Web 2.0 is more than just the internet. It is literally a web that connects us through all of the communications devices we carry.

As a classroom teacher and in the absence of truly holistic Web 2.0 research, I will share with you how I (and others I emulate) have constructed the effective Web 2.0 classroom in the hopes that this will provide a framework for further research and best practices discussions.



The effective Web 2.0 classroom

The engaged teacher is the foundation of the Web 2.0 classroom and is even more important than the technology. (I implemented Web 2.0 with a six-year old computer lab!) With this in mind, I propose that the effective Web 2.0 classroom is any classroom constructed on the following six pillars:

- Web Safety and Privacy
- Information Literacy
- Web Citizenship
- Web Teamwork
- Intentional Web Activities
- Accountability

Web safety and privacy

An essential 21st century life skill is web safety and privacy. Students should understand how to protect their identity, report inappropriate behaviour, and communicate safely on the Web. The challenge of web safety has caused many well-meaning educators and parents to completely shut students off from the real Internet world. This is a grave disservice.

Imagine raising a saltwater fish. The longer the fish remains in the fishbowl, the more difficult it will be to transition to the ocean. Consequently, I believe that as a student nears graduation from high school, that a **progressive strategy of internet freedoms** should be allowed so that when it is time for them to interact in the “real world” internet that they can do so safely for a lifetime.

During my classroom orientation, I explain that we are swimming on the shores of a vast ocean (the Web) and that we have shark nets in place (filters, etc.) and a lifeguard watching (me). Because no “shark net” (or content filter) is perfect, they must communicate all problems with the lifeguard (me) and be aware. They should also use good privacy skills which will help camouflage them from predators.

Information literacy

Web information is created by people with varying agendas, knowledge, and opinions. Students must move from a “textbook” world where they are taught to implicitly trust everything, to an online world that requires investigation and source checking. This is a skill that must be taught by those who have **discernment** and often requires students to be exposed to information that may contain error.

Web citizenship

Our students have a civic responsibility to be effective web citizens and we have a responsibility to teach them. They must be able to discuss, communicate, and share in meaningful, ethical, (and humble) ways. They need to understand that the internet is not a joke! It is real life!

Scholarships and their future employment hinge upon what will turn up when their name is searched. Everything they create in their name serves as a virtual tattoo that they often cannot remove from Google’s cache¹⁸.

Web teamwork

Collaborating with other classrooms is easier than ever. In an emerging global economy, students must know how to cooperate with classmates and global peers. **Meaningful cross cultural cooperation** between students through collaborative technologies are essential to the future of our world.

¹⁸ See <http://comingofage.ning.com/video/video/show?id=678011%3AVideo%3A982> for a powerful video on this subject.

Intentional web activities

Every web activity in the effective Web 2.0 classroom is alive with **purpose**. These well planned activities teach essential web skills or content goals (usually both.) These activities are **somewhat** tested, always monitored, and fairly assessed. They are activities that allow students to read **and** create. In my opinion, indiscriminate surfing wastes valuable educational time and is not what I am supporting.

Accountability

As students move online, they bring with them their flaws. No disciplinary distinction should be made between the classroom inside the school house and those that are online. Online classroom spaces must be monitored and supervised during all times when posting is open (including vacation.)

I have found that when students are held accountable and problems are handled swiftly and decisively, online disciplinary issues are virtually nonexistent. Through micro-accountability in the classroom, they learn that in the macro “real world” that they are responsible for their web activities and that foolishness has dire consequences.

The foundation: the engaged teacher

The engaged teacher is:

- Connected;
- Open-minded;
- Vigilant;
- Ethical; and
- Passionate about his/her subject.

Connected

The effective Web 2.0 teacher is a part of the web. He uses an RSS reader to comment on blogs, stay abreast of innovations, and share best practices. Daily blog reading is an essential 21st century professional development tool.

Open-minded

This teacher considers new technologies and is not prone to make reactionary statements without considering the facts. As a model of what she teaches, she is not threatened by change.

Vigilant

This teacher effectively supervises students (usually through RSS) and lessons are well planned. Students are held accountable.

Ethical

This Web 2.0 educator has character and is candid (in an age-appropriate way) about internet predators, privacy, plagiarism, and emerging real world web issues.

Passionate

This educator is enthusiastic about his subject and willing to integrate new tools that fit with educational best practices. He wants to do what is best for his students, even if it means changing 30 year habits. This person is a good teacher already and with Web 2.0, he becomes even better!

What does a Web 2.0 classroom look like?

Each classroom will deploy different tools depending upon the topic that is being taught and the teacher. For example, Darren Kuropatwa’s mathematics class (<http://adifference.blogspot.com>) uses a blog to post class notes and a wiki to recognise achievement. My wiki-centric technology classroom (<http://westwood.wikispaces.com>) uses virtually every tool in this book and I am constantly adding new ones as appropriate. However, an English classroom using

blogs to promote creative writing or a wiki to write collaborative poetry can be just as Web 2.0 as my computer lab.

Web 2.0 connects you with today's student

I believe that effective Web 2.0 tools strengthen your connection with students by making content more exciting and relevant. Challenging content-creation activities that require discernment and creation require the higher-order thinking skills and benefit others outside the classroom.

For example, here are some alternatives a Web 2.0 foreign language educator might use for a verb conjugation activity:

- Students record and playback on their cell phone.
- Students dial into a podcast phone number (www.odeo.com).
- Students don headsets and talk with students across the world (www.skype.com).
- Students text one another on cell phones. (www.cellphedia.com).
- Students use a digital recorder to record and share.
- Students find and download authentic foreign language to share and translate.
- Students chat online with others print their transcript for study. (www.campfirenow.com).

Same activity, new methods, more excitement!

In Conclusion

The Web 2.0 classroom is an evolving classroom. An observer will see a consistency of content from year to year but often see a variability of tools used to relay that content.

While planning your Web 2.0 strategy, it is important not to overanalyse but to select what will work with your curriculum, educate yourself, and start somewhere. These tools should be integrated into what you are doing as you **improve** what doesn't work and **keep what does!**

You do not need a computer for every student. Filtering policies may block some things you want to use, but **use what you can**. Do not be dismayed that others in your school do not share your enthusiasm. Do not be concerned when students groan at first (*as they always do*). I equate this process to pushing a car parked in neutral. It may be a slow start, but momentum will build if you keep on pushing!

It all starts with you, the visionary teacher who is reading this book. **Your engagement** is truly the first step and the foundation of the Web 2.0 classroom.

The role of educational leaders in implementing Web 2.0

By Miguel Guhlin

It is probably fairly well-established by now that the “buy-in” of school and district leadership teams is crucial to the successful implementation of Web 2.0. Miguel Guhlin explores the role of leadership in some depth, drawing on his own research.

A loaded pistol? The potential dangers of Web 2.0, and our response to them

Before going to sleep one evening in September, 2006, my 12 year old daughter and I watched the first 30 minutes of Primetime’s *Cruel Intentions*¹⁹. It was, essentially, an expose about girls and their electronic gadgets. The show should have been titled “Cyberbullying,” since that was what it was really about. However, *Cruel Intentions* seemed as good a name as any.

As we watched the show – which depicted teenage high school girls abusing each other via MySpace, IM, blogs, using camera phones to capture themselves and others in seductive or embarrassing poses – I was reminded of my first exploration of <http://www.myspace.com>. My reaction then was to call for blocking of MySpace and similar sites in schools. The effect of the show was to reinforce my negative impression of MySpace. The most telling quote in the show was made by the father of a young boy who was bullied online, **“Buying the computer was the worst mistake I ever made....”**

It appears that giving kids access to the Read/Write web is like putting a loaded pistol in their hands without education. And, how many kids have to be bullied online before everyone wakes up (no, not you edubloggers...the other people who haven’t read your blogs) and realise s that digital citizenship, that education is the only way? As we listened to the show, I just gave my daughter long looks. We didn’t have to speak. We knew what the other was thinking. How many parents even realise that their children are involved in the more sinister side of the Read/Write Web? Administrators are caught between a rock and a hard place, a situation that Scott McLeod (Dangerously Irrelevant, <http://scottmcleod.typepad.com/dangerouslyirrelevant/>) writes about:

“Some schools and districts are providing rich sets of tools for teachers and students to use for classroom purposes. These tools include e-mail accounts, network folders, web pages, parent portals, online chat, online threaded discussion areas, online whiteboards, online calendars, instant messaging, wikis, blogs, podcasts, and other similar tools. No district, however, is making all of these tools available to all teachers and, indeed, probably never can. The incredible (and burgeoning) diversity of available tools is simply too much for school systems to keep up with, much less provide.”

Disruptive technologies

(http://journalism.nyu.edu/pubzone/weblogs/pressthink/2006/06/27/ppl_frmr.html) – exemplified by the ability to publish at will in text, audio, video formats or any combination of those – enhance our freedom of speech, freedom to assemble in virtual communities. Social networking tools like MySpace (or Facebook, <http://facebook.com/> and Bebo, <http://bebo.com/>) and YouTube (<http://youtube.com/>) grant freedom of speech and assembly to the masses in a way that the American Revolution²⁰ never could. For this reason, disruptive technologies that connect people to each other are the greatest threat to the powerful who have traditionally controlled the means of publication. Unfortunately, that includes our schools.

In 2005, several school districts in Texas banned the words “MySpace.com.” Not only did this word ban people from accessing MySpace, but it also kept educators from reading about it in online newspapers and digital citizenship sites. The reason for

¹⁹ <http://abcnews.go.com/Primetime/story?id=2421562&page=1>

²⁰ http://en.wikipedia.org/wiki/American_Revolution

banning ranged from preventing flash mobs around the subject of immigration to preventing students from exposing themselves to cyber-predators. These blocks frustrated legitimate uses of Web 2.0 tools, and failed to prevent tech-savvy students from using freedom tools²¹ to access banned sites.

Yet, technology has advanced to the stage that school districts cannot keep up, short of closing off internet access. Their only hope may be to create walled gardens²² – using Web 2.0 tools – that mimic the world but keep students and teachers safe. When you harness the power of a worldwide community to develop ways to bypass content filtering and site banning for freedom advocacy in countries like China, can we really expect a proprietary company to keep up? Consider the money that districts must invest to upgrade their technology watchdogs.

Districts are hopelessly out-gunned. In fact, as quickly as they can raise the funding to pay for technology watchdogs to upgrade their systems, online communities share ways around them. As districts take on the aspect of repressive regimes, they are drawn into the war between those who say, like the American Patrick Henry²³,

“Give me Liberty or Give me Death.”²⁴

Is this, caught in a fight between liberty and oppression, where American schools should be?

Charge of the light brigade²⁵

As an educational technology administrator who champions Read/Write Web tools in schools today, I see that we are in the midst of a fight that we cannot win. Yet, how we lose, how we go down into the darkness must offer hope to those we serve, to those for whom we administer scarce resources, and, for each other. We face three terrific battles, and they are as follows:

The Fight for Relevance

The Fight for Connected Learning

The Fight for Freedom from Consumerism

Redefining our vision of the future hinges on these three battles, conflicts that we can win only by losing. In fact, consider Ted Nellen's words. They are invitation to despair, yet, also, something more that lies on the other side of defeat.

“I used to rant and rave and present and publish this for many years, but alas spitting in the wind has gotten the best of me and I have resigned myself to the demise of tech and substantial use of it in schools for the future because of the reactionary attitude of punishment and prohibition over the more intelligent choice of education of the user. as I have said before, the adults who lead don't get it and never will. I have beat my head against this brick wall for too long, screamed and shouted till I'm hoarse, demonstrated the success potential for too long. as I near my twilight years, I am content to merely fade away on this topic as I see it getting worse and worse. We had our heyday and I

²¹

<http://mguhlin.jot.com/WikiHome/Article%3A%20The%20Role%20Of%20Educational%20Leaders%20In%20Implementing%20Web%202.0/Freedom%20Fight>

²²

<http://mguhlin.jot.com/WikiHome/Creating%20the%20Walled%20Garden%3A%20Web%202.0%20Apps%20for%20K-12%20Districts>

²³ http://en.wikipedia.org/wiki/Patrick_Henry

²⁴ <http://www.law.ou.edu/ushistory/henry.shtml>

²⁵ <http://poetry.eserver.org/light-brigade.html>

don't see it happening again. Camelot is dead and so is intelligent use of the tech in schools, IMHO."

Source: Ted Nellen, as cited in the Voice in the Wilderness Blog Entry²⁶

We must allow technology to not be "intelligently" used. Ted's despair is our hope. We must **abandon previous positions** on the efficacy of technology in schools, and instead, **use technology to amplify the human voice**, the voices of our children. As parents, teachers, and administrators, it is our responsibility to do the right thing. That's a simple expectation, incredibly difficult to accomplish.

On my way to work a few weeks ago, National Public Radio shared an interview with a musician who also happened to have been knighted. I regret that I couldn't take notes and have forgotten every detail of the conversation, except what I'm about to share here. Let's just say that as I listened to the story, I found a remarkable coincidence between the knight's appraisal of how we treat hunger and education today. He said something along the lines of,

"We know what the right things to do are, yet we consistently fail to do them."

With such a quote, it would be easy to stop doing the right things, to say, "Aww heck, I'm giving up." Yet, with the blogosphere, there are ample examples of teachers doing the right thing. Here is a short list of class blogs that I've surveyed recently. While there are literally hundreds of class blogs, I'm keeping this list short. You know the power of a child's voice can galvanise a room of educators and parents. Why not take advantage of that? Here are four quick examples where you can find audio of children's voices.

Examples of children's audio

Paul Gates at Madison Elementary School

Ok, this teacher is in my own school district, but I have to shine a spotlight on this teacher to the ranks of blogging classrooms. Blogging is as personal as you can get, and blogging classrooms are no different. Each depends on the personalities of the students, their background, etc. Paul's students have consistently written about the garden that they keep, and everything they are learning about plants. You can find audio blog entries (a.k.a. podcasts) from individual students sharing what they have learned, written about, and drawn by hand. It is Paul's class blog that has taught me the definition of a blog – an electronic notebook that facilitates conversations between those who blog there, as well visitors. Visit the blog online at <http://lms.saisd.net/cblog/index.php?blog=6>

Mark Ahlness²⁷ ' Mighty Writers Blog in Seattle, Washington

Mark's class is using David Warlick's ClassBlogmeister blogging tool, as are many others. There's even a Junior SeaHawk Newsletter²⁸ podcast along with print editions. If you're wondering how to approach blogging and podcasting in schools, this is another example. Since I was a third grade teacher once – who thoroughly enjoyed teaching writing – I'd like to think that I might be doing what Mark's doing now with his students.

Cheryl Oakes²⁹

Cheryl is doing a fantastic job with her Blogmeister experience. What stands out for me, aside from the Audio Notes with Ms. Oakes, is something she wrote that sends such a terrific message to the rest of us in schools embroiled in the MySpace discussion:

²⁶ http://www.mguhlin.net/blog/archives/2006/05/entry_1555.htm

²⁷ http://classblogmeister.com/blog.php?blogger_id=5655

²⁸ <http://www.halcyon.com/arborhts/jrseahaw.html>

²⁹ http://epnweb.org/blogmeister/blog.php?blogger_id=11114

This project is a great project for young people to start with, I am having a say in how they will use MySpace and Xanga (<http://www.xanga.com/>) later on. I am not naive enough to believe that there will never be bullying or sharing information with this group of students but I do know that they know it is not **cool** to share personal information and it is not **cool** to be mean to someone. Students this age are really black and white when they view the world. I immediately get sticky messages or email when they observe someone has done wrong! These are teachable moments.

If only all of us took advantage of those teachable moments.

Kathy Cassidy's Grade 1 blog³⁰

I was introduced to this recently in discussions online via the Class Blogmeister list, struggled recently with trying to get enhanced podcasts online. I love the fact that the student entries are unedited by the teacher, and that podcasts and images abound. One un-edited entry is this one:

"It is olmoste easter in aprol my mom and dad will hide easter aggs it will be fun."

It reminds me of how young writers shouldn't be afraid to write what they're thinking, even if the spelling and grammar are a bit off. While it is disappointing to see young teachers edit their children's work prior to publication, it is always refreshing to see a teacher unafraid to share students' writing "as is." In the long run, students become better writers when they're not edited into silence...a valuable lesson for administrators working with their teachers, too.

A quick laundry list of students podcasting appears below:

- I am So Scared Poem!³¹
- Room 5 Podcasts³²
- Radio WillowWeb³³
- Mabry Middle School³⁴ – Includes principal, teacher and student podcasts and blog entries.
- Long Elementary Podcasts³⁵
- Our City Podcast³⁶

Although there are many more blogging classrooms, these are a few that can be used as examples to demonstrate the power of writing, podcasting using blogging tools that are available for free. I hope that more will choose to do the right things with our children. If you would like to see a blog featured here, I encourage you to share it here and mention why it captured your attention!

Don't underestimate the power of children's voices. Let those voices fight for the freedom to use technology to learn in a way that is relevant, connected, and free. As educators, especially educators responsible for administering school environments, we must awaken to the power within us to bring about change through the relationships we build with others. An administrator who fails to build relationships in his district may soon find himself out of a job. The standard has been raised. The administrator who

³⁰ http://epnweb.org/blogmeister/blog.php?blogger_id=1337

³¹ http://ictucan.podomatic.com/entry/2006-07-05T17_36_19-07_00

³² <http://www.room5.podomatic.com/>

³³ <http://www.mpsomaha.org/willow/radio>

³⁴ <http://mabryonline.org/podcasts>

³⁵ <http://long.dearbornschools.org/podcast/Long%20Elementary/HOME.html>

³⁶ <http://www.learninginhand.com/OurCity>

fails to build a web of connections with others online will soon find himself managing irrelevance.

The fight for relevance

Walk into any school district in America, and the focus isn't on learning. I know that is an unbelievable assertion, yet it is a true one. Our schools are caught up in a frenzy of high-stakes test preparation, angling to move their students 10 points up in the rankings. How do I know this? Last week, I stepped into a superintendent's office. Her words to me were shocking, as shocking as watching the MySpace³⁷ fiasco play itself out.

"If you give them fairy dust, something that will improve their test scores by 10 points, then you'll have technology integration in every elementary, middle and high school. Schools are not doing well in math and science. What technology solution do you have that will raise scores 10 points if they use it?"

In the face of such ardent desire for a magic bullet, as an educational technologist, I stand defeated. K-12 education leaders appear to have learned nothing. Sound instructional practice, pedagogy blended with appropriate technology use that is hands-on, inquiry-based is the only solution. Like C.S. Lewis' characterisation of Christianity as an untried prescription for the human condition, this is a solution that has seldom been tried or implemented.

In this situation, can any instructional technologist seriously consider advocating for Web 2.0 implementation? The obvious short-term solution is to invest in integrated learning systems³⁸, those tools of tutorial and drill-n-practice that yield short term gains but long-term dis-engagement from learning. We come now, at the end of days, to the stark reality of a fish out of water, gasping for survival, praying that his gills will let him breathe the thin atmosphere. Quietly or with desperation, educational technology as we knew it is dying.

The change comes about, not because we failed to show its power to impact students, but because teachers, legislators have closed ranks against the vision of transformation, fear coalescing like beads of sweat in the face of virtue.

Jeff Utecht writes about the suspicion of fear, the dawning realisation that technology in America's schools is **optional**. I say he has not gone far enough in his characterisation of an expensive investment.

"For most schools technology integration is optional. So I am supporting an optional program. I know it's been said before but: as long as teachers have the option to integrate technology, some will opt not to. Since computers first started showing up in schools it was optional. Some teachers used the computer labs others didn't. I think we set a standard way back when of technology being optional. Now we are faced with the reality that as a system, education views technology integration as optional."

Source: Jeff Utecht, The Thinking Stick (<http://jeff.scofer.com/thinkingstick/?p=285>)

The reality is that schools don't see technology as optional. Rather, it is irrelevant: whether the laminating machine works is a more relevant concern. Maybe that is splitting hairs, but I see irrelevant as much worse than optional. Optional implies that technology might be used if the teacher chooses, that it has some worth. Irrelevant

³⁷

<http://mguhlin.jot.com/WikiHome/Article%3A%20The%20Role%20Of%20Educational%20Leaders%20In%20Implementing%20Web%202.0/MySpace?create=1&createFromLink=1&sourcePage=%2FWikiHome%2FArticle%3A+The+Role+Of+Educational+Leaders+In+Implementing+Web+2.0>

³⁸

<http://mguhlin.jot.com/WikiHome/Article%3A%20The%20Role%20Of%20Educational%20Leaders%20In%20Implementing%20Web%202.0/Resource%3A%20Integrated%20Learning%20System>

says that there is no worth, whether you choose to use it or not. I'm often fearful that the best I can do³⁹ seldom impacts what happens in the classroom.

Fighting talk

Into this mix, we must accept the fact that the System is fighting back. On the one hand, Web 2.0 advocates preach a vision of children, teachers, and administrators creating their own personal learning networks, collaborating with each other, but the reality is far from that. But, how do we deal with that reality? In many ways, we are cast as Jihadists fighting a battle to war to retake our schools, a struggle for domination. Is this the role we wish to play? And, how will such ideas be greeted? Will we, as ed-tech administrators, get the carrot or the stick?

As we share information and ideas – about anything at variance with the doctrine of those “in power” – we set ourselves up to be punished. In fact, the effort begins with fear, uncertainty, and doubt being spread about an innovation, then goes downhill from there. It's an unfortunate turn of events, but is it something we should be surprised at? Whether it's the Church, a school district, a government, a private company, the fact is that if you appear to challenge the status quo – even for the benefit of the organisation – you will face censure and punishment. The world's response is to fight to win, to seek to oppress the other side. It is to destroy the opposition one way or another. It is a human response.

Yet, I wonder if the better approach is to fight to lose. It is the idea that we are fighting, not on our own behalf, but to the benefit of the organisation we are a part of. If we are willing to sacrifice our jobs, our livelihood for the organisation, we gain a tremendous power. Think of Gandhi lying beaten down on the ground in South Africa, his hand reaching up to burn the work passes⁴⁰ non-European people had to carry there in 1906, the British officer – imbued with the power of the dominant authority – poised to hit him again. In that moment, the power shifts from the oppressor to the oppressed, the beaten-down.

How do we deal with this? First, we have to be willing to accept the risks of disobedience, to suffer the consequences of that disobedience. That's too nice. We have to accept that we may be beaten down, perhaps even utterly destroyed by those who wish to maintain the status quo. When we consider that irrelevance is the other option, is that such a bad thing? As administrators, we have taken on a powerful role – on behalf of the oppressors. Should we subvert the system or preach outright rebellion?

“...not by the acquisition of authority by a few but by the acquisition of the capacity by all to resist authority when it is abused. In other words, ...by educating the masses to a sense of their capacity to regulate and control authority⁴¹.”

Can we on the one hand preach the benefits of Web 2.0 to transform teaching and learning, while at the same time oppress the use of these tools in K-12 schools? Gandhi has given us our answer – our fight for relevance must be one to enact a **program of transformation of relationships ending in a peaceful transfer of power**. Our role – as administrators – is to resist, quietly, respectfully and to educate as many people as we can, as quickly as we can as to what the options are. And, there are options. The power of Web 2.0 is that those options can be quickly shared and responded to in ways that email never permitted. As schools move to embrace technologies that are by their very nature, disruptive, they set themselves up for the kind of change desired. In their rush to play along, to keep up with the district two

³⁹ http://www.mguhlin.net/blog/archives/2006/08/entry_1911.htm

⁴⁰ <http://theory.tifr.res.in/bombay/persons/mk-gandhi.html>

⁴¹ <http://theory.tifr.res.in/bombay/persons/mk-gandhi-writings.html#1>

counties or states or territories over, they forget that Web 2.0 technologies are intended to disrupt their control of the information flow. Your task as administrator is to cast fear aside.

The courage comes from knowing that others are suffering with you. Knowing that we're not alone removes the sting of suffering alone: somehow, we're bound together by common bonds of fighting fear and isolation. Connectivity is so important. It is the defining moment in our century for people. The more connected we become, the more we reach out even beyond our limited face to face contacts, the more we recognise our common humanity and... divinity.

We have to change ourselves, commit to that change. Because we have changed who we are, we change others through our interactions, and our connectivity changes the world. Our simple commitment to change ourselves means that we can fight the unwinnable fight. While we are not assured of winning, we are assured of victory over fear and suffering. Join me in saying,

"It is important that I, as a teacher and administrator be able to tell my own stories, not have them scripted or mediated by any one organisation. It is time that I take advantage of the tools available to me, and find a way to change myself so that I might be the change I want to see around me."

The nature of leadership

Leadership isn't about getting others to do what I want. Leadership is about changing who I am, it's about acknowledging my hypocrisy, my fear, my unwillingness to follow my conscience. It is easier to remain silent, to say nothing when speaking up is required, simply because to speak up means stirring up ripples. It means knowing that silence is agreement, sometimes with the most hypocritical of ideas. For me, it is in that moment that the meaning of what it is to be lukewarm⁴² in the Revelations book of the Judeo-Christian Bible – worthy only of being spat out, useless – is driven home.

Consider this call to change:

"The nation has begun to seriously look at the restructuring of our schools. The crisis of education demands it. The future of our nation's ability to compete in a new, global economy depends on it. And to promote learning in America, dramatic changes in all areas of education – from in-class instruction to school-building design – are being contemplated."

The beauty of that quote is that it works in 2006-2007, as well as 1990 when it was originally written.

That's right, those words were written in 1990. The authors were urgent in their writing, eager to see America deal with the crisis. But, you know what happens when people are in crisis-mode all the time? Experts⁴³ say that you shouldn't allow someone else who is insecure about your ability to complete a task on time, throw your own priorities out of whack. It would be far better for you to make decisions about how to best allocate time and energy to address the crisis.

Some questions

So, let's step back from this education crisis and consider a few points.

- What technology has been used over the last few years to get us out of the crisis?
- What can you do to get out of crisis mode and control how your time and energy are allocated?

⁴² <http://www.biblegateway.com/passage/?search=Revelation%203:15-16;&version=31;>

⁴³ http://www.amanet.org/arc_center/experts.htm

- How can technology help you accomplish that?

What technology has been used over the last few years to get us out of the current crisis?

After poring over multiple reports regarding educational technology in the last 20+ years, it becomes obvious that school districts have been worked up to a fever pitch. One report actually comes out and says, go ahead and experiment with new technologies! And, the money poured in. Through it all, some teachers valiantly tried to keep up while others just endured until retirement.

Consider that Henry J. Becker gives us this timeline (with a few modifications at the end):

1982: Have students program your computer.

1984: Have students program the computer using LOGO.

1986: Use integrated learning systems to teach students.

1988: Use computers as tools, like adults do.

1990: Integrate computers with existing curriculum

1992: Have students use technology to create products

1994: Have students interact with the world via email.

1996: Have students publish to the World Wide Web

Now, if we skip ahead a bit, we can see what is in store for us.

2000: Have teacher design webquests⁴⁴ that require students to role-plays and collaborate to solve a real life problem.

2006: Have teachers and students engage in conversation through the use of blogs and podcasts, as well as create digital stories.

As you look at this timeline, you start to realise that every time technology became available, it was rushed into schools under the guise of educational crisis. Now, that is the crisis we have to overcome.

What can do you to get out of crisis mode and control your time and energy?

Technology advocates in classrooms, teachers by any other name, often find themselves alternating between two extremes. One the one hand, they are struggling to prepare their students to pass the test, while on the other, they are introducing their children to the latest technologies, experimenting with new approaches to engaging students. While some argue that experimentation is too risky⁴⁵, it is the experiential learning⁴⁶ – learning by doing – that engages human beings. When we learn by doing, we remember more, we are more actively engaged. In fact, as adults, the environment we need is not

“dissimilar to the atelier of an artist⁴⁷, to be created for accelerating practical learning of both novices and more experienced practitioners”⁴⁸

Source: Argyris & Schon, 1978.

Simply, students make discoveries and experiment with knowledge themselves instead of hearing or reading about the experiences of others.

⁴⁴ <http://www.webquest.org/>

⁴⁵ <http://doug-johnson.squarespace.com/blue-skunk-blog/2006/4/7/is-experimentation-ethical.html>

⁴⁶ http://en.wikipedia.org/wiki/Experiential_learning

⁴⁷ <http://en.wikipedia.org/wiki/Atelier>

⁴⁸ <http://www.poolonline.com/archive/issue11/iss11fea5.html>

This approach is now being exorcised from classrooms today. Instead, the “hear, understand, and do”⁴⁹ model of education is making its return. As a teacher, you face several mandates, the most important of which is to ensure students become lifelong learners⁵⁰ and responsible members of society⁵¹. This goal is enshrined in the vision or mission statements of most school districts. Interpretation of how to accomplish that mission, however, has been taken out of the hands of teachers by lock-step scope and sequence⁵² documents. Teachers and campus administrators have lost control. How can they be expected to experiment with technology, to learn by doing when the consequences are so dire?

“True peace of mind,” wrote Lin Yutang⁵³, “comes from accepting the worst.”

As a teacher, as an administrator, what is the worst that can happen? In our high-stakes testing environment, the worst that can happen is that my class of children fails to do as well as the class next door or the kids in China or India. This may result in a negative appraisal, or worse, dismissal or reassignment to another campus or office. The worst also means that your students may be promoted to the next grade level unprepared for the next round of tests. In the long run, it can mean the end of civilisation as we know it.

But, let’s be honest. Civilisations end. Are they more likely to end because of fear-driven education or because we fail to nurture the flickering flame of learning? Will civilisation fail because we teach to our fears⁵⁴, rather than what motivates us as learners?

“What is important is to keep learning,” said Martina Horner, President of Radcliffe College, “to enjoy challenge, and to tolerate ambiguity. In the end there are no certain answers.”

Consider the worst, then allow your students to learn by doing.

How can technology help you accomplish that?

Since politicians, pundits, and experts all have an expensive way of using technology in your classroom, I encourage you to ask 3 simple questions. The first question is, “How is technology being used in society today?” This provides some insight into what technologies your students may be using, and that perhaps, you can use. The second question is, “How can such technology facilitate communication, collaborative problem-solving, or solution development?” And, third, “What technology can I use that will be effective for use with all students in the class, not just a select few?”

The only way to have hope of responding to these questions is to “First, cast out fear.” As you consider your responses to these questions, remember that adults, as well as children, accelerate their learning and remember more when they learn by doing. The crisis in education isn’t in our schools. It’s in the fact that we as teachers and administrators have let others who are insecure about our ability make decisions. Don’t you think it’s time we took back our artist’s workrooms, and put fear aside?

The only way through this, to find joy in being, is to become a creator, to share one’s testimony, one’s story, perhaps played on an instrument that is out of tune, to sing with a voice that doesn’t quite hit the notes right, to dance with a faltering step. Simply, it is a fight to do things that are relevant, that unite and bring us closer to each other. It is the possibility of being useful to one another and sharing our journey. In a world that is

⁴⁹ http://www.mguhlin.net/blog/archives/2006/03/entry_1299.htm

⁵⁰ <http://www.boerne-isd.net/page.cfm?p=3>

⁵¹ <http://www.nallegheny.k12.pa.us/academics/speced/Mission%20Statement.htm>

⁵² <http://www.nycenet.edu/offices/teachlearn/documents/scopesequence/languagearts.html>

⁵³ http://en.wikipedia.org/wiki/Lin_Yutang

⁵⁴ <http://en.wikipedia.org/wiki/Fear>

increasingly connected, we will see repeated efforts to use that connectivity to regulate and control rather than encourage autonomy and collaboration for creative purposes. It is the fight for connected learning, the courage to reach out across the waters, cross borders and great walls we have built, and let children be as they are.

The fight for connected learning

“Leaders seeking change must abandon the fantasy that human organisation s function as hierarchies – and recognise the reality of networks.”

Source: Of Hubs , Bridges, and Networks (Douglas B. Reeves), page 32, Educational Leadership (May, 2006)

The price for connected learning is too great for any established government – or school – to pay. Governments oppose connected learning because they can serve as tools for social justice.

Web 2.0 tools – blogs, wikis, etc – can obviously serve as tools for social justice. The powers that be caught a glimpse of that with MySpace.com being used to coordinate⁵⁵ immigration walkouts⁵⁶ in the Dallas area and other places. Some school districts decided to ban the words – not just the web address/URL – to prevent students access to MySpace. While the official reason given is, “MySpace.com is dangerous for students to access due to cyber-predators,” the **real** reason is that students can use such blogs to coordinate their social justice efforts⁵⁷.

Among educators, new leaders are emerging that probably would not have been allowed to organise in public schools. Blogs are enabling leaders to grow and collaborate with each other in a battle for freedom from repressive regimes that have evolved from America’s schools. Bill Kerr, Australian educator, writes:

“On the one hand education departments are calling for innovation, change, creating the future, constructivism, more emphasis on engagement with less emphasis on content. On the other hand they are blocking one of the most important sources of the creativity (the read / write web) that they profess to crave for.”

The reason given that blogs, wikis, and other Read/Write Web technologies are blocked is to protect our students, as well as protect the District from liability. In education, one of two roads may be taken. The first will be to just eliminate technology integration in schools. This will happen easily since it costs too much. The second, worse than the first, is that technology will become the education version of “treacherous computing” that Richard Stallman⁵⁸ refers to. Look around, you will see the reality of this in your district. Have you given up your freedoms without a fight? If you teach in schools today, chances are, you not only gave it up, you did so willingly.

I grew up watching Star Trek re-runs, watching Captain Kirk navigate the stars with a directional gesture and a quip, “Somewhere out there, between those two stars” (or something like that). And, for me, that was the description of leadership, the leap into the unknown, the ship flying itself to pieces as a team of dedicated flesh and blood people worked together. It was also the idea that leaders can redefine the circumstances in new ways that make problems solvable. Consider the scenario of Kobayashi Moru⁵⁹, where Kirk reprograms the computer to make winning possible.

⁵⁵ http://www.mguhlin.net/blog/archives/2006/04/entry_1386.htm

⁵⁶ http://www.andycarvin.com/archives/2006/05/si_se_puede_marching.html

⁵⁷ http://www.mguhlin.net/blog/archives/2006/04/entry_1390.htm

⁵⁸ http://www.mguhlin.net/blog/archives/2006/05/entry_1422.htm

⁵⁹ <http://journalscape.com/Markterry/2005-05-05-13:34>

Kobayashi Moru is a training scenario for Star Trek captains where they are to rescue a ship called the Kobayashi Moru, which puts them in enemy space – it is, essentially, a no-win situation, and they want to test how the captains-in-training face no-win situations, ie., how you face death and failure is at least as important as how you face success.

Fascinating, no? Even though it's fiction, reconfiguring our understanding of reality, redrawing the map is a critical leadership skill. When I read AssortedStuff Blog⁶⁰ today, I ran across this sentence:

"To have any hope of actually keeping up, educational "leaders" need to change their whole approach to understanding what the web is, how it works and where it's going."

In other words, re-conceptualise the situation. What I'm looking for is not educational leaders trying to keep up with the pack, but ones ready to fly into a new star system, risking danger to understand how new technologies can impact teaching, learning and leadership. Yet, I think many of us are settling to be simply managers, and managers are fearful creatures who resent innovation and criminalise creativity⁶¹. They fail to embrace technology for positive change⁶².

While there are sets of established procedures to follow, the administrator's task is to redefine reality, to re-design the procedures that change what is permissible and what is not in the culture. Our campus administrators are buried in the avalanche of things that must be done, so much that they seldom achieve the smooth, easy movements that make such leadership appear effortless. Instead of simply responding to the every-day, we have to be able to choose to live from principle, to create the future. This is summarised in this quote:

"Choosing to live from principle – to create the future – separates, divides, and changes relationships. When we claim our integrity, when we exercise the courage to enter the fundamental state of leadership, we leave all existing patterns of social exchange. We leave the middle of the curve. We become truly unique."

Source: Building the Bridge as You Walk On It, Robert Quinn

This is really about moving from just responding to every day issues, and deciding to "define" rather than be defined, to predict the future by inventing it. AssortedStuff's blog reflects that decision to become the change we want to see in the world, asking this question:

"How can anyone possibly understand what the read-write web is all about unless they do some of the writing?"

Two crucial questions

In claiming our integrity, we need to come back and ask ourselves, our colleagues, and supervisors some questions, such as:

Should we monitor websites?

Should we, as educators, be monitoring these sites like MySpace to keep an eye on our students and possibly avert dangerous situations?

We need to be modelling digital citizenship, not spending time monitoring MySpace-type sites. Please note that several conversations on a variety of blogs by technology administrators – like you and me – already acknowledge that our filtering systems aren't finely-grained enough to block some users, not others; some content, not others. For that, we need a human instrument...a human being. The only way to accomplish

⁶⁰ <http://www.assortedstuff.com/?p=1487>

⁶¹ http://www.mguhlin.net/blog/archives/2006/05/entry_1470.htm

⁶² http://www.archive.org/download/embracetech/mguhlin_embracingtech.mp3

that is to actively encourage parents, students, teachers and others to practice and model digital citizenship rather than preach “NO MORE MYSPACE.COM!”

Social networking, adult spaces are being misappropriated by children. There is a clear desire, need to communicate with others that is facilitated by blogs and wikis. We need to model the right approach to doing so in an academic environment. I have prepared a list of tools⁶³ that can be used in a “walled garden” approach for schools.

Is this our core business?

This is a great question because it refocuses us away from what’s the best content filter to teaching for living. We all acknowledge that living in the 21st century, in the global economy, requires new skills and strategies. Daniel Pink refers to those new skills in his book, *A Whole New Mind*⁶⁴. They are different than information age skills. I also have to point out that research on using technology within the content areas is focused on communication. Although I explore this in more detail⁶⁵, I end with this conclusion:

The focus across all of these content areas emphasises communication and inquiry with appropriate data collection and analysis. Essentially, we need to encourage more information literacy. Yet... is it just me, but is information literacy the most poorly supported of all literacies? Print literacy is obvious: we need it to survive. Information literacy seems to be ignored, and yet it is the **most** critical for us according to these areas. It’s obvious that the toolset of digital story/poetry-telling, blogs, wikis, podcasting are but one way for students to order the chaos. Perhaps, engaged students might not be so interested in circumventing content filtering and gain the resulting consequences...criminalisation of their creativity.

I keep coming back to this question Janet Swenson asks, writing on behalf of Language Arts specialists,

“How can newer technologies help us to re-awaken in our students a sincere passion for learning in and across disciplines?”

If in answering Janet’s question, you realise that the focus is not on high-stakes testing, then you realise the massive gap between relevant social communications and connectivity our children enjoy, and the irrelevance of what they are learning in school.

Two stories...

Moses

Allow me to share only two examples of this irrelevance with you, although be warned that there are more. Capturing these stories could easily become a full-time task.

Moses (his real name albeit in English) is a young man in his early twenties. He makes his living as a computer programmer/developer on a Mac. Although his parents consider him a genius, as do others, they were shocked when he dropped out of his university studies.

Since both his parents are university-educated, value higher education as the way to get ahead in the world, they were not quite sure what to do. Moses’ reason was that university is too boring, so he dropped out and is running his own business using technology. He works in Panama but his work is finding its way across country and languages (Moses has been asked to translate his work from Spanish to English). His story, shared with me at a Mexican restaurant in San Antonio, Texas by the Panamanian “branch” of my family, reminded me of a similar tale....

⁶³

<http://mguhlin.jot.com/WikiHome/Creating%20the%20Walled%20Garden%3A%20Web%202.0%20Apps%20for%20K-12%20Districts>

⁶⁴ See Sharon Peters’ review of this book in Section 2.

⁶⁵ <http://feeds.feedburner.com/mguhlin?m=796>

Joseph

I had heard the story about my eldest brother's youngest son, Joseph, who had done the exact same thing.

Joseph's story is very similar. He began university studies, but then began programming using free and open source software tools, and now works on web sites, databases, and other technical stuff.

What do these examples tell us?

I'm convinced that these two examples reflect an important fact that we are going to see more and more. It's not that these two bright young men are failures or couldn't have done well in higher education. But rather, that university level studies are slow, plodding, and cannot keep up with the accelerated pace of Web 2.0 or Read/Write Web learning. I predict that this is a growing trend and when it branches out to other areas that are heavily involved with technology (e.g. communications technology), people will wake up.

We have children hooked up to the Web from young, learning how to learn online, grab information, "rip, mix and burn" in ways that are beyond our willingness, even power, to control. Information literacy, as critical as it is, is a fact of life that they are learning **on their own**. So, while they aren't perfect at it, they are just doing it. (This is more than what the rest of us are able to say).

And, they'll get better with time. Since they can tap into a global community of learners – after all, isn't that what we are as blogging educators? – they can get answers to questions faster, learn and implement solutions in ways that university (and K-12 schools) just can't keep up with. K-16 is competing with a **global** community of teachers and learners. How do you get "credentials" in this kind of environment? Or is **product** the only measure of your work? In the case of these young men, it's clear that they are producing content that is not only marketable in one country, but across countries and cultures. In a flat world, our children design, build, play, tell stories about the tools they use⁶⁶ to get the job done.

With the parents of both boys, I shared the story of how my school district bought a product to manage content management system accounts/sites from a Russian company, where the developers were young folks (early to mid 20s from the photos). Customers and service providers are brought together by the technology, as they live and work in a connected world.

We're living in a world that has been flattened, and digital immigrants are waking up to the fact that the educational institutions that served them so well in the past...just aren't cutting it for their children. Worse, credentialing and the benefits that once produced have been pushed aside in favour of those bold, clever and innovative enough to blaze their own trail in a world is new reality. I've read – don't remember where – that people don't believe the World is Flat, or that our education system is in dire straits.

Part of me wants to say, we're in dire straits, not because K-12 educators have failed, but because technology and our children have networked, connected. And, now that the network is alive and hooked up, there's no going back.

Conclusion: the role of educational leaders in implementing Web 2.0

So, with this in mind, I would focus on taking three simple actions:

1. Build the walled garden in your District, acknowledging the Organisation's need to control the means of publication even as you model their use at all levels to transform teaching, learning, and leadership.
2. Do everything you can to amplify students' and staff's voices through the use of Read/Write Web Tools, carefully safeguarding and protecting the online

⁶⁶ <http://danpink.com/>

3. Acknowledge defeat and accept that only the children will realise the full benefits of the work you are about...and isn't that what we're working for anyways?

Further reading

- Creating the Walled Garden: List of Web 2.0 Applications.⁶⁷
- Freedom Tools: List of ways to bypass School District Content Filters.⁶⁸
- Integrated Learning Systems: Summary of Research.⁶⁹

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<http://mguhlin.jot.com/WikiHome/Creating%20the%20Walled%20Garden%3A%20Web%202.0%20Apps%20for%20K-12%20Districts>

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<http://mguhlin.jot.com/WikiHome/Article%3A%20The%20Role%20Of%20Educational%20Leaders%20In%20Implementing%20Web%202.0/Freedom%20Fight>

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<http://mguhlin.jot.com/WikiHome/Article%3A%20The%20Role%20Of%20Educational%20Leaders%20In%20Implementing%20Web%202.0/Resource%3A%20Integrated%20Learning%20System>